
CENTER OF AGRICULTURAL SCIENCES

Doctor in Veterinary Medicine

OBJECTIVE:

To train doctors in Veterinary Medicine and Animal Husbandry with a humane formation, reflective, socially responsible, and capable of contributing in a decisive manner to animal populations useful to man. DVM should preserve their health and maintain optimum performance levels, as well as preventing the transmission of diseases to the human, and contribute, within the normative framework of quality and innocuity. In addition to promote sustainable rural development and food sufficiency in the fields of veterinary medicine, animal husbandry, quality assurance and veterinary public health, as well as in rural development.

PROFILE OF THE APPLICANT:

In accordance with institutional guidelines, the admission profile fits to the areas that are evaluated by the admission exam corresponding to curriculum of doctor in Veterinary medicine and Zootechnician degree.

- In addition, there are some of desirable traits for the applicant as shown:
- Interest and predilection for the animal species.
- Being proficient in study techniques.
- Adaptability and responsibility for individual and group work.
- Interest for the social wellbeing and the conservation of the environment.
- Interest to develop of the functions required by the exercise of Veterinary Medicine and Zootechnics.

FIELD OF WORK:

The field of work of the graduate in Veterinary Medicine and Zootechnics is wide and diverse; he acts in the primary production of foods in the rural areas, as well as, in the transformation of the products of animal origin and in providing professional veterinary and zootechnical services in multiple modalities of urban and rural organizations. For these reasons, it is necessary to continue with the specialization in one or more areas where he is working in order to keep up to date with the forefront strategies and techniques. Additionally, the internationalization of the veterinary knowledge and the increase in periodic publications sets an obligation on the graduate to participate in continuous education or postgrad studies related to the conditions of his professional occupation.

The graduate will be able to perform his professional functions:

- In the independent professional service: in veterinary clinics and hospitals, in veterinary pharmacies and as an itinerant veterinarian.
- Working for large, medium and small veterinary enterprises.
- Working for the public sector at their different levels, federal, state or municipalities.

In the areas of:

- Veterinary Medicine and Animal Health
- Animal production
- Public health, hygiene and inspection and control of products of animal origin.
- Transformation and conservation of products of animal origin.
- Animal Protection and their environment.
- Administration and rural economics.
- Rural development.
- Care of domestic and wild animals.
- Teaching, training and research in the veterinary and animal sciences.

PROFILE OF THE GRADUATE.

For the development of his professional functions, an array of specific interactive knowledge, abilities, attitudes and values are required; these characteristics give professional identity to DVM, also they respond to the requirements demanded by society and reflect an ideal performance in animal production and health, as well as, the sanitary protection and rural development. A list of the elements of the profile of the graduate in DVM, is next.

Knowledge:

- Structure and function of domestic animal in their different levels of organization, as well as the environmental aspects that intervene in its production and behavior.
- Adequate techniques for the handling and restraining of animals.
- Biological, pharmacological and physicochemical characteristics of the etiological agents and relationships with lesions and alterations that they inflict upon the animal organism and its products.
- Principle feeds and its nutritional components, digestion and metabolism, as well as the nutritional requirements of the animals according to its species, physiological stage and zootechnical function.
- Methods for balancing rations, efficiency in the use of animal feeds and of specialized computer software.
- Mechanisms that direct the heredity and the variation of characteristics of zootechnical interest, as well as the methods and tools for genetic improvement and assisted reproduction.
- Techniques in the processing and conservation of foods of animal origin.
- Requirements for each species and its zootechnical stage, for the design of animal installations and equipment, housing and transportation, and establishments for the processing of animals for food.
- The fundamentals of agricultural and animal business management.
- Primary technical and economical parameters of the agricultural and animal business.
- Offer and Demand of the products and resources used in animal production and the effect of commercialization in the establishment of commercial prices.
- History of veterinary medicine and animal production and its influence in the agricultural sector in Mexico.

- Methods to achieve preservation and sustainability of natural resources.
- Ethical norms and legal framework, which guide and direct the development of the professional activities.
- Informational sources and data analysis techniques, according to its utility for actualization and specialization.
- English at the basic level.

Abilities:

- Elaborates a clinical definitive diagnosis to detect in a precise and opportune manner the state of health and disease of animals.
- Provides medical and chirurgical effective treatment using therapeutic procedures in a reasonable manner, procuring the integrated attention to the patient, the protection of public health and using evidence based-medicine.
- Realizes epidemiological studies for the vigilance, prevention, control and eradication of diseases with sufficiency, efficiency and opportunity within the actual normative framework.
- Takes care of the welfare of domestic and laboratory animals, in the wild and in captivity, according to normativity.
- Generates genetic improvement in animals through selection and directed breeding, in an effective and viable manner.
- Improves the reproductive capacity by means of viable and effective techniques of assisted reproduction.
- Realizes surgery in productive, sporting, and companion species, attending the different functions, racial characteristics and their standards.
- Manages and conserves forages for the feeding of animals in an efficient way, considering the vocation of the land in a sustainable way.
- Determines the type of feeding and nutrition of the animals according to species, considering their physiological production stage, taking into consideration the nutritional requirements and the nutritive value of the feeds recommended in different technical references.
- Determines the needs of animal housing, taking into consideration the factors that affect their well-being and health.
- Promotes the protection of the environment and the sustainability of the resources, considering the environmental impact of the productive programs and the toxic risks of compounds used on the animals, their feeds and products.
- Applies the norms in the transformation and sanitary protection of the products of animal origin, establishing specific quality and inocuity systems.
- Performs sanitary and production management in public institutions, animal and crop production enterprises and similar industries, with a perspective of leadership, initiative, business spirit and a commitment to general well-being and the improvement of social and natural circumstances.

- Contributes to the improvement of rural communities towards the common well-being and the improvement of the social and natural surroundings through high-impact community development projects.
- Supports sustainable development providing zootechnical information for agricultural and animal production projects which include the efficient use of local natural resources and alternative sources of energy, considering the regional animal production vocation.
- To listen, talk, write and read the English language at a basic level.

Attitudes:

- Entrepreneur and innovative spirit.
- Promotes the well-being of animals.
- Respects the life of all animals.
- Avoids unnecessary animal suffering.
- Values the importance of implementing actions to preserve the environment and make good use of natural resources.
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- Procures do his professional activities in ethical and decorous manner, and within a normative framework.
- Measures social and economic impact of animal illnesses.
- Habits of study oriented to overcoming and actualization professional, as well as, self-teaching.

Values:

- Autonomy and social responsibility
- Pluralism
- Humanism
- Quality

DURATION:

Ten Semesters.

SYLLABUS

First Semester

- BIOCHEMISTRY
- INTRODUCTION TO VETERINARY MEDICINE
- VETERINARY ANATOMY
- VETERINARY PHYSIOLOGY
- ZOOTECHNICAL MEDICAL PRACTICES I

Institutional of Humanistic Formation

Institutional Foreign Languages Program

Second semester

- GENERAL PHYSIOLOGY
- FORAGE PRODUCTION AND PASTURE MANAGEMENT
- CLINIC VETERINARY ANATOMY
- BROMATOLOGY AN ANIMAL NUTRITION
- ZOOTECHNICAL MEDICAL PRACTICES II

Institutional of Humanistic Formation
Institutional Foreign Languages Program

Third Semester

- CELL AND TISSUE BIOLOGY
- ANIMAL FEEDING
- VETERINARY PHARMACOLOGY
- CLINIC VETERINARY TOXICOLOGY
- ZOOTECHNICAL MEDICAL PRACTICES III

Institutional of Humanistic Formation
Institutional Foreign Languages Program

Fourth Semester

- GENERAL PHARMACOLOGY
- VETERINARY PATHOLOGY
- PARASITIC DISEASES OF DOMESTIC ANIMALS
- INFECTIOUS DISEASES OF DOMESTIC ANIMALS
- VETERINARY MICROBIOLOGY
- ZOOTECHNICAL MEDICAL PRACTICES IV

Institutional of Humanistic Formation
Institutional Foreign Languages Program

Fifth Semester

- VETERINARY MICROBIOLOGY
- CLINICAL VETERINARY PATHOLOGY
- VETERINARY MEDICAL PROPAEDEUTIC
- VETERINARY DIAGNOSTIC IMAGING
- ZOOTECHNICAL MEDICAL PRACTICES V
- ELECTIVE VOCATIONAL SUBJECT

Sixth Semester

- VETERINARY IMMUNOLOGY

- GENETICS AND ANIMAL IMPROVEMENT
- ASSISTED ANIMAL REPRODUCTION
- EPIZOOTIOLOGY
- ZOOTECHNICAL MEDICAL PRACTICES VI
- ELECTIVE VOCATIONAL SUBJECT

Seventh Semester

- BIostatISTICS
- AGRICULTURAL RESEARCH
- VETERINARY SURGERY
- SANITARY QUALITY OF MEAT AND DAIRY PRODUCTS
- ZOOTECHNICAL MEDICAL PRACTICES VI
- ELECTIVE VOCATIONAL SUBJECT

Eight Semester

- FORMULATION AND EVALUATION OF LIVESTOCK PROJECT
- ZOOTECHNICS AND CLINIC OF POULTRY
- ZOOTECHNICS AND CLINIC OF HORSES
- ZOOTECHNICS AND CLINIC OF SWINE
- ZOOTECHNICAL MEDICAL PRACTICES VIII

Institutional Program of Social Service

Nineth Semester

- INTRODUCTION TO BUSINESS FUNCTION
- ZOOTECHNICS AND CLINIC OF CANINES
- CLINIC OF RUMINANTS
- ZOOTECHNICS OF RUMINANTS
- ZOOTECHNICAL MEDICAL PRACTICES IX

Institutional Program of Social Service

Tenth Semester

- ZOOTECHNICAL MEDICAL PRACTICES X
(Professional Practices)
- Professional Ethics

Institutional Program of Social Service

INSTITUTIONAL PROGRAMS:

- Institutional of Humanistic formation
- Institutional foreign languages program
- Institutional program of Professional Practices
- Institutional Tutoring program
- Academic Exchange and mobility

DEGREE REQUIREMENTS

The graduate must adhere to the provisions of chapter XIV of the degree in technical, technical and higher education, article 156 of the General Teaching Regulations (NI-20300-19), which states the following:

"Once all the subjects and requirements indicated in the curriculum of technical, technical and baccalaureate degrees have been accredited, the graduate may request the issuance of his degree in the Department of School Control, after complying with the following elements :

- I. To have fulfilled the requirements of Social Service, Humanistic formation, Professional Practices and Foreign Languages, defined in the institutional programs;
- II. Prove that there is no debt with the Universidad Autonoma of Aguascalientes;
- III. Pay for the fee established in the plan of taxation to obtain the title; and
- IV. - To have taken the exit exam.