

Department of Animal Sciences (ANSC)

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| Chairperson: | Hamadeh, Shady |
| Professors: | Barbour, Elie; Farran, Mohamad; Hamadeh, Shady; Sleiman, Fawwak |
| Research Associates: | Sidani, Marwan |

The main function of the Department of Animal Sciences is to produce qualified graduates capable of serving the region in all areas of animal science: research, services, business, and education.

The department participates in offering courses within the FAFS undergraduate core program. Selected senior courses that cover areas of major importance in animal agriculture (i.e., nutrition, physiology, management, production) are also offered to students wishing to select an area of emphasis in animal sciences.

The department also offers the BS degree in Veterinary Science at FAFS prepares the graduates for life-long learning and professional advancement in the field. Students will get the solid basics in animal health, husbandry, nutrition, and breeding. The curriculum is integrative, multidisciplinary and multifunctional allowing graduates to have broader abilities in finding jobs in the local, regional and world market. This program will also prepare students to pursue their graduate studies in poultry and animal sciences as well as in the basic medical sciences.

The following courses are offered by the department:

Course Descriptions

Core Courses for the BS Degree in Agriculture

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| ANSC 222 | General Livestock Production | 2.3; 3 cr. |
| Modern principles and practices in beef, sheep, and dairy production and reproduction. | | |
| ANSC 224 | Agricultural Microbiology | 2.3; 3 cr. |
| A course that covers basic and applied microbiology. The basic microbiology includes bacteriology, virology, parasitology, and immunology, and the applied microbiology includes veterinary, soil and water, and food microbiology. | | |
| ANSC 226 | Poultry Production | 2.3; 3 cr. |
| Modern principles and practices in poultry production with special emphasis on Middle Eastern conditions. <i>Prerequisite: ANSC 271.</i> | | |

Core Courses for the BS Degree in Veterinary Science

- VET 201 Microbiology I+II (Bacteriology and Virology) 2 cr.**
The course summarizes the main characteristics of bacteria, fungi and viruses including their morphology, resistance, molecular structure, virulence factors, antigenicity, and animal and human pathogenicity.
- VET 202 Animal Breeding and Genetics I 2 cr.**
The course introduces the principles of Mendelian and population genetics and their application in breeding, improvement and management of farm, companion and pet animals with the goal of profitable animal production and improved health status. Selection and breeding methods are elaborated in addition to basic topics related to biotechnological advances in this field and its role in relation to other aspects of animal production.
- VET 203 History of Veterinary Medicine 1 cr.**
The course explores the beginnings of veterinary medicine from Ancient times to the middle ages and ending with modern times and the specializations and different branches in veterinary medicine.
- VET 204 Pathology I 2 cr.**
The course is divided into two main topics. General pathology describes the causes and the common nature of disease processes including the genetic and immunological disorders, inflammation, neoplasia, and malformation. Systemic pathology discusses the pathological changes of specific diseases according to the organ-systems and the whole pathology of certain infectious and non-infectious diseases in detail.
- VET 205 Topographic and Applied Anatomy 2 cr.**
The course is divided into six major sections starting with the palpable landmarks of the body followed by the topography of the thorax, abdomen, pelvic cavity and ending with the limbs. Superficial veins, sites of venous blood sampling, investigation points will be explored in different body parts.
- VET 206 Clinical Diagnostics 2 cr.**
The course deals with examination techniques and symptomology of internal diseases. The course is organized according to organs and organic systems, with special attention to the corresponding instrumentation used and species specific differences.
- VET 207 Microbiology III (Veterinary Immunology) 2 cr.**
The subject introduces the protective functions of the hosts to different microbes, and the humoral and cellular immune system, and provides the theoretical background of immune-prophylaxis against infectious diseases.
- VET 208 Animal Breeding and Genetics II 2 cr.**
The course teaches the general and specific significance of cattle, swine, sheep, goat, horse, poultry, dog, cat and fur animal breeding in the world. It introduces the main productive characteristics of the internationally recognized breeds and types of the above mentioned species. The various methods of applied breed improvement and heritable diseases are discussed in detail according to the different species. The local aspects and facilities receive particular emphasis.

