FEDERAL UNIVERSITY OF THE RECÔNCAVO DA BAHIA
PROFESSIONAL MASTER'S IN FARMING DEFENSE

List of syllabuses of curricular components of the Postgraduate Program: Professional Master's in Farming Defense

SCCA594 - MICROBIOLOGICAL AND PHYSICAL-CHEMICAL QUALITY OF PRODUCTS OF ANIMAL ORIGIN - 68 h
Syllabus: Milk: chemical composition, macrocomponents and their relation to the processing of derivatives. Quality control in the dairy industry. Cheese maturation: chemical, microbiological and physical-chemical transformations. Principles and methods for preserving red meat and poultry. Conservation by cold, heat, drying and dehydration. Conservative substances and additives used. Eggs: Physical-chemical deterioration. Microbiological deterioration. Methods for preserving eggs in natura; refrigeration, glazing, oiling, pasteurization. Egg processing: drying, cooling and freezing of whole eggs, egg whites and egg yolks. Preparation of some meat products. Fish: Fish processing: refrigeration and smoking. Agribusiness for minimally processed fish.

SCCA655 - AGRICULTURAL DEFENSE RESEARCH SEMINAR - 34 h
Syllabus: Research projects outlined with exposition of hypotheses, bibliographic review, methodology and preliminary or expected results.

SCCA656 - EXPERIMENTAL STATISTICS IN AGRICULTURAL DEFENSE - 34 h
Syllabus: Planning, execution, analysis and interpretation of experiment results. Most commonly used experimental designs in research.

SCCA657 - SCIENTIFIC METHODOLOGY - 34 h
Syllabus: General aspects of Philosophy of Science. Scientific and post-graduate research. Methodology and Scientific Methods. Techniques and Research modalities. Scientific papers and publications. References. ABNT Standards (Brazilian Technical Standards Association).

SCCA658 - PATHOLOGIES OF ANIMAL REPRODUCTION AND OF BIOTECHNICS - 68 h
Syllabus: Study of reproductive phenomena; semiology of the genital system; concept, etiology, diagnosis, prevention, control and therapy of the main reproductive affections of economic importance of domestic animals and importance of reproductive biotechniques for the control and diffusion of pathologies.

SCCA660 - PHYTOSANITARY CLINIC - 68 h
Syllabus: Within the scope of the discipline, aspects related to the importance of diagnosis for a fast detection and taking of measures of control, eradication and containment of diseases will be approached. Concepts of factors predisposing plants to diseases. Forms of dissemination of phytopathogens and epidemiological implications. Identification and diagnosis of diseases through visual evaluation of symptoms and signs, focusing on cassava and tropical fruit trees. Collection methods, herbarization of material and preparation of samples for laboratory. Basic biotechnology methods for the identification of fungi, bacteria, viruses, nematodes and fastidious bacteria. Abiotic or non-infectious diseases.

SCCA661 - SPECIAL TOPICS IN PHYTOSANITARY DEFENSE - 68 h
Syllabus: Promote detailed knowledge in population monitoring of pests and natural enemies and integrated pest management.

SCCA662 - BIOCHEMICAL APPLIED TO ANIMAL EXPERIMENTATION - 68 h

Syllabus: Study the main biomolecules of interest in animal experimentation. Correlate structural and functional aspects of biomolecules to animal experimentation.

SCCA663 - VETERINARY IMMUNODIAGNOSIS - 68 h

Syllabus: Enable an understanding of humoral immune responses. Study the principles of techniques applied to the diagnosis of main diseases in the veterinary medical practice. Understand and interpret main variations in the results of these diseases. Correlate the results and pathophysiological states of animals.

SCCA664 - SANITARY EDUCATION - 34 h

Syllabus: Health education - Critical reflection on the role of educational actions carried out by professionals who work in plant and animal defense for agricultural development. Different approaches to health education in Brazil. Communication process in health education. Methods and strategies of education - Process of learning while teaching. Meaningful learning. Contextualization of pedagogical trends.

SCCA665 - ANIMAL EPIDEMIOLOGY - 51 h

Syllabus: Epidemiological structure of health problems: agent, host and environment; frequency measurements. Descriptive epidemiology and public health: distribution of diseases and health problems according to the characteristics of people, space and time; effects of age, cohort and period. Health indicators. Epidemiological and demographic transition. Epidemiological surveillance: investigation of epidemics. Natural history of diseases and levels of application of preventive measures. Etiological research and public health: planning of epidemiological studies, measures of association and potential impact; sources of errors in epidemiological studies: validity and precision; interaction. Evaluation of public health programs; evaluation of monitoring programs. Prevention: individual and population approaches; infectious diseases; non-infectious diseases.

SCCA666 - ARTHROPODS OF ECONOMIC IMPORTANCE - 68 h

Syllabus: Taxonomically characterize the major groups of arthropods of economic importance. Describe the biology, ecology, damages, hosts and management of the major groups of arthropods of economic importance.

SCCA667 - ARTHROPODS OF QUARANTINARY IMPORTANCE - 68 h

Syllabus: Identify and characterize morphologically the major groups of arthropods of quarantinary importance. Risks of introduction of pests. Describe the biology, ecology, damages, hosts and management of the major groups of arthropods of quarantinary importance.

SCCA668 - GOOD PRACTICES IN ANIMAL PRODUCTION - 68 h

Syllabus: Discuss the justifications and the adequacy of actions carried out in animal production. Improve and guide professional practice in animal management. Understand and reflect on good management practices to meet national and international recommendations.

SCCA691 - INSECT IDENTIFICATION - 51 h

Syllabus: Terminology and main topics of zoological nomenclature. Classification methods and techniques. Systematic position of Insects (Classification and Phylogeny). Use of dichotomous keys. Identification of insect orders. Identification of the main insect families. Taxonomy and systematics of insect pests. Methods and techniques of collection, preservation, assembly and packaging of insects.

SCCA700 - ECOTOXICOLOGY OF AGROCHEMICALS - 51 h

Syllabus: Definition and study of the main chemical substances used in agriculture and livestock. Environmental dynamics, contamination and processes of dissipation of agrochemicals in soil, air and water. Risk assessment. Environmental toxicology and toxicology applied to agrochemicals. Bioaccumulation, bioconcentration and biomagnification. Acute and chronic toxicity tests. Acceptable and estimated daily intake and maximum residue limit. Brazilian legislation and standards for toxicological evaluation.

Techniques for the determination of residues of agrochemicals in the environment and in food. Implementation of biomonitoring programs.

SCCA701 - INFECTIOUS DISEASES WITH EMPHASIS IN MAIN ZOONOSES - 51 h

Syllabus: Natural history and prevention of the main diseases of domestic animals caused by agents such as bacteria, viruses and fungi. Highlight aspects of relevance such as etiology, transmission, pathogenesis, clinical symptoms, immunological aspects, lesions, clinical and laboratory diagnosis, control measures, prophylaxis, prevention and treatment. Highlight their impacts in relation to the population and programs recommended by the Official Institutions and MAPA (Ministry of Agriculture).

SCCA720 - SANITARY LEGISLATION OF PRODUCTS OF ANIMAL AND PLANT ORIGIN - 34 h

Syllabus: Study of International and National Phytosanitary Legislation. Study of the Sanitary Legislation of Products of Animal Origin. Understand the process of development and application of national and international legislation.

SCCA - MANAGEMENT AND CONTROL OF INFECTING PLANTS - 51 h

Syllabus: Concept, importance and classification of weeds. Population and seed bank dynamics in the soil. Association between infecting and cultivated plants. Physiology of interactions between infecting and cultivated plants. Interference of weeds with crop growth and yield. Methods and practices of infecting plant management. Impacts of soil management, plant cover and herbicides on the population dynamics of infecting plants. Weed control methods. Plant responses to allelochemicals. Methods of study of allelopathy. Herbicides: behavior in plant and in the soil. Chemical groups, mode of action, formulations, mixtures, interactions and selectivity of herbicides. Management of integrated control of infecting plants. Decision-making for control of weeds.

SCCA502.2 - DISEASE CONTROL METHODS - 102 h

Syllabus: History of phytopathology, importance of plant diseases and definition of disease. Causal agents: fungi, bacteria, phytopathogenic viruses, phytonematodes, Stramenopile, other agents. Chemical control of plant diseases. Genetic control of plant diseases. Biological control of plant diseases. Cultural control of plant diseases. Physical control of plant diseases. Integrated control.

SCCA503.2 - PEST CONTROL METHODS - 34 h

Syllabus: Methods and Techniques of Pest Control: Legislative Control. Cultural Control. Biological Control. Chemical Control. Physical Control. Mechanical Control. Behavior Control. Control of Plant Resistance to Insects. Integrated Pest Management.