

Tikrit university



*First Cycle – Bachelor's Degree (B.Sc.) – PLANT
PROTECTION*

بكالوريوس – وقاية نبات



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1. Overview

This catalogue is about the courses (modules) given by the program of PLANT PROTECTION to gain the Bachelor of AGRICULTUER Science degree IN PLANT PROTECTION. The program delivers (xx) Modules with (6000) total student workload hours and 240 total ECTS. The module delivery is based on the Bologna Process.

نظرة عامة

يتناول هذا الدليل المواد الدراسية التي يقدمها برنامج وقاية النبات للحصول على درجة بكالوريوس العلوم الزراعية في وقاية النبات. يعتمد تقديم المواد الدراسية على عملية بولونيا.

2. Undergraduate Courses 2024-2025

Module 1

Code	Course/Module Title	ECTS	Semester
PPD-1101	Entomology	6	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	71
Description			
Catalog description: Introduces principles of insect study, including insect structure, insect development, evolutionary insect history, and its ecological significance.			

Module 2

Code	Course/Module Title	ECTS	Semester
AGR -1102	Horticulture principles	6	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	71
Description			

The learner should be able to understand and comprehend what is related to the subject of principles of horticulture and its relationship to other sciences • Their selection of important agricultural processes in horticultural plants • Differentiating between different planning systems and the appropriate ones • Understand the basics and concepts of horticulture • Distinguish between processes that are suitable for fruit, vegetable and ornamental crops • Familiarity with the information the farmer needs and what is available to him to understand the science of horticulture and its divisions • Agricultural awareness of the factors affecting yield • Determine methods of producing seeds in horticultural crops and methods of caring for them in terms of storage and marketing • A comprehensive study on how to establish vegetable farms or fruit orchards and establish nurseries for horticultural plants

Module 3

Code	Course/Module Title	ECTS	Semester
PPD-1103	General Zoology	6	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	71
Description			
<p>Zoology is the study of animals, their classifications, structures, behaviors, anatomies, habitats, and all things to do with animals. Zoology is broken into smaller branches of zoology that each specialize in specific animals, types of</p>			

Module 4

Code	Course/Module Title	ECTS	Semester
AGR -1104	Agricultural economy	4	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2		33	67
Description			
<p>agricultural Economics is the study of how societies use available resources to meet the needs of people. Agriculture represents the single largest use of the earth's resources—a major driving force in the world's economy</p>			

Module 5

Code	Course/Module Title	ECTS	Semester
UNI-1105	Human Rights and Democracy	3	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2		33	42
Description			
The curriculum deals with human rights. Women's rights ,Child Rights ,animals rights ,International agreements ,Universal Declaration of Human Rights ,UNICEF ,UNESCO and Red Cross Organization.			

Module 6

Code	Course/Module Title	ECTS	Semester
UNI-1106	English Language 1	2	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2		33	17
Description			
The curriculum deals with the rules of the english language. The possibility of Englization. The possibility of writing a piece of construction agricultural in an exact linguistic form. and larning to conversation			

Module 7

Code	Course/Module Title	ECTS	Semester
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UNI-1107	Computer Science 1	3	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
1	1	33	42
Description			
<p>Educating the student to be familiar with the basic rules for dealing with the computer and managing it to help him in completing projects, printing matters, preparing statistics and graphs, creating presentations, designing engineering diagrams, etc., and the emergence of the Internet as a means of communication available to all, it has become very necessary for the student to learn to use the computer because of the role of the Internet in many fields Including education, scientific research, trade and marketing through correspondence Electronic web pages and electronic speech.</p>			

Module 8

Code	Course/Module Title	ECTS	Semester
AGR -1201	General Botany	5	2
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
<p>Introduce students in the first stage on the basics of botany and plant cell that contains the components of plant tissues and internal members of the plant and its components and some of the processes that occur in the plant, including photosynthesis and respiration and cell division in plant.</p>			

Module 9

Code	Course/Module Title	ECTS	Semester
AGR -1202	Non-Organic Chemistry	5	2
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)

2	3	79	46
Description			
<p>Knowing the type of non organic compound based on the existing active group, as well as identifying the interactions and methods of preparing non organic compounds, with a brief summary of methods for their diagnosis. Determine the site of a non organic reaction by knowing the reactants and products of the reaction. Determine the reaction conditions required for the preparation of non organic compounds. Naming non organic compounds based on the law of the International Union of Pure and Applied Chemistry.</p>			

Module 10

Code	Course/Module Title	ECTS	Semester
PPD-1203	Basics of plant protection	6	2
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	71
Description			
<p>The principles of plant protection for pest management of field, forage, and horticultural crops will be examined. The foundations of integrated pest management programs are considered, including surveys and identification of insects, plant diseases, and weeds. Students will be introduced to topics including monitoring and forecasting methods; strategies for management of pests; and implementation of pest management approaches. The course emphasizes the integration of different methods for managing insects, plant diseases, and weeds while examining the economic, social and environmental implications of pest control. This course features a laboratory component focused on the identification of important insects, plant diseases, and weeds.</p>			

Module 11

Code	Course/Module Title	ECTS	Semester
AGR -1204	Basics of soil and water resources	5	2
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)

2	3	79	46
Description			
<p>As a result of this course, participants will be able to: *Appreciate the principles governing the maintenance of soil organic matter contents, maintenance of good soil structure and methods for the prevention of water and wind erosion. *Appreciate the legal requirements for the protection of soil and the maintenance of soil health. *Appreciate the mechanics, economics and environmental aspects of cultivation. *Appreciate the relationships between soil and water management to enable best use of land and the minimisation of diffuse pollution. *Understand the role of plant nutrients in crop production and their application, all with due regard for environmental protection. *Understand the advantages, risks and legal aspects of the application of farm manures and other organic manure products to land..</p>			

Module 12

Code	Course/Module Title	ECTS	Semester
AGR -1205	General Mathematics	4	2
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2		33	67
Description			
<p>The curriculum deals with computers and mathematical operations. Teaching mathematics aims to develop ways and methods of thinking for the learner and how to deal with problems and solve them. The possibility of calculations using various mathematical operations.</p>			

Module 13

Code	Course/Module Title	ECTS	Semester
UNI-1206	Baath Party crimes	3	2

Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2		53	22
Description			
<p>The learner should know what crime is and what its types are • will be able to explain and clarify the crimes committed by the Baath regime in Iraq • For students to be familiar with international and local laws that criminalize the actions carried out by the Baath regime in Iraq • The student's awareness of the extent of the crimes committed by the Baath regime in Iraq by highlighting those crimes • .should be able to give examples of these crimes and the places where they occur • The learner should know the psychological and social effects of the crimes committed by the Baath regime on the personality of the Iraqi citizen • The learner should know the environmental effects of the crimes committed by the Baath regime on the environment of Iraq • The learner will know the graves left behind by the defunct Baath regime, specifying their location and time of occurrence</p>			

Module 14

Code	Course/Module Title	ECTS	Semester
UNI-1207	Arbic Language	2	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2		33	17
Description			
<p>The curriculum deals with the rules of the Arbic language. The possibility of Arbization. The possibility of writing a piece of construction agricultural in an exact linguistic form. and larning to conversation</p>			

Module 14

Code	Course/Module Title	ECTS	Semester
PPD-2301	Microbiology	6	3

Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	71
Description			
Learn about the nature of general microorganisms. To know the methods of reproduction of microorganisms.			

Module 15

Code	Course/Module Title	ECTS	Semester
PPD-2302	Statistics	5	3
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
Educating the student to be familiar with the basic rules for dealing with the computer and managing it to help him in completing projects, printing matters, preparing statistics and graphs, creating presentations, designing engineering diagrams, etc., and the emergence of the Internet as a means of communication available to all, it has become very necessary for the student to learn to use the computer because of the role of the Internet in many fields Including education, scientific research, trade and marketing through correspondence Electronic web pages and electronic speech.			

Module 16

Code	Course/Module Title	ECTS	Semester
PPD-2303	Plant physiology	5	3
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46

Description

plant physiology is a branch of study in Botany dealing with the physiological processes or functions of plants. Precisely, it is a descriptive study of variation and structure of plants at the molecular and cellular level, resulting in ecological, physiological and biochemistry related aspects of plant exploration.

Module 17

Code	Course/Module Title	ECTS	Semester
PPD-2304	Plant Taxonomy	5	3
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
<p>Introducing students to the basics of plant taxonomy, which includes how to classify plants, classification methods, and identification of some plant families. Giving information to the student of the Faculty of agriculture - the second stage, the basics of plant classification, identifying the types of classification methods, and identifying some plants and the various plant families.</p>			

Module 18

Code	Course/Module Title	ECTS	Semester
AGR -2305	Machines and protective equipment	5	3
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	2	79	46
Description			

This course helps the student learn about the most important agricultural pest control equipment, how to use, maintain and design it, and some aspects of the development that has occurred on that equipment.

Module 19

Code	Course/Module Title	ECTS	Semester
AGR -2306	Agricultural guidance	4	3
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2		33	67
Description			
<p>The courses aim to teach students how to teach farmers best practices and about modern technology to enable them to produce high quality products at low costs. Training sessions and lectures are delivered to farmers and include photographic supplements and data; the sessions take place at public halls in villages and fields</p>			

Module 20

Code	Course/Module Title	ECTS	Semester
AGR -2401	Principles of field crops	5	4
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)

2	3	79	46
Description			
1. Gathering and preserving the seed of the desired crop plants. 2. Destroying other kinds of vegetation growing on the land (weeds). 3. Stirring the soil to form a seedbed. 4. Planting the seed when the season and weather are right as shown by past experience. 5. Protecting the crop from natural enemies. 6. Gathering, processing and storing the products. 7. Removing by hand the destructive insects in the fields.			

Module 21

Code	Course/Module Title	ECTS	Semester
PPD-2402	Plant nutrition	5	4
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
Introducing and teaching the student plant nutrition is the study of elements and compounds necessary for plant growth, metabolism and external supply. A plant cannot complete its life cycle in its absence.			

Module 22

Code	Course/Module Title	ECTS	Semester
PPD-2403	Classification of insects	5	4
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
The curriculum deals with the study of applied insects. Definition of entomology, the reality of insects in the animal kingdom, the division of arthropods, their general characteristics, and			

their classification Class Insects General characteristics of insects.

Module 23

Code	Course/Module Title	ECTS	Semester
UNI-2404	Computer Science 2	3	4
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
1	1	33	42
Description			
<p>Educating the student to be familiar with the basic rules for dealing with the computer and managing it to help him in completing projects, printing matters, preparing statistics and graphs, creating presentations, designing engineering diagrams, etc., and the emergence of the Internet as a means of communication available to all, it has become very necessary for the student to learn to use the computer because of the role of the Internet in many fields Including education, scientific research, trade and marketing through correspondence Electronic web pages and electronic speech.</p>			

Module 24

Code	Course/Module Title	ECTS	Semester
PPD-2405	Analytical chemistry	5	4
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
<p>Introducing students to the basics of Analytical chemistry is the science of obtaining, processing, and communicating information about the composition and structure of matter. In other words, it is the art and science of determining what matter is and how much of it exists.</p>			

Module 25

Code	Course/Module Title	ECTS	Semester
PPD-2406	Medical and veterinary insects	5	4
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
<p>Introduction to medical and veterinary entomology with a brief history of medical and veterinary arthropods. The relationship of medicinal insects to the general health of humans and animals, and the pathological conditions that arise by medical insects. Medical and veterinary insects as intermediate hosts or vectors of pathogens that cause human and animal diseases.</p>			

Module 26

Code	Course/Module Title	ECTS	Semester
UNI-2407	English Language 2	2	4
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2		33	17
Description			
<p>The curriculum deals with the rules of the English language. The possibility of Englishization. The possibility of writing a piece of construction agricultural in an exact linguistic form, and learning to converse.</p>			

Module 27

Code	Course/Module Title	ECTS	Semester
PPD-3501	Genetics and plant Breeding	5	5

Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
The curriculum deals with the study of genetics from the structure and transmission of genetic material. Providing students with academic and applied information about genetics.			

Module 28

Code	Course/Module Title	ECTS	Semester
PPD-3502	Design and analysis of experiments	5	5
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
The course will examine how to design experiments, carry them out, and analyze the data they yield. Various designs are discussed and their respective differences, advantages, and disadvantages are noted. In particular, factorial and fractional factorial designs are discussed in greater detail.			

Module 29

Code	Course/Module Title	ECTS	Semester
PPD-3503	Insects physiology	5	5
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			

The study of the functional properties of insect tissues and organs. Insect physiology is a branch of biology that investigates how insects live and function. Insects are one of the most diverse groups of animals on Earth and have evolved adaptations that allow them to live in a variety of ecosystems

Module 30

Code	Course/Module Title	ECTS	Semester
PPD-3504	Nematode	5	5
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
<p>Through this course, students learn what nematodes are, what their types and classifications are, how they parasitize plants, what their most important families are, their shapes and sizes, how to isolate and diagnose them, and methods of resistance to them.</p>			

Module 31

Code	Course/Module Title	ECTS	Semester
PPD-3505	Mycology 1	5	5
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
<p>This curriculum covers the study of the basic concepts of fungi, their economic importance in different aspects of life, and methods of classifying these organisms.</p>			

Module 32

Code	Course/Module Title	ECTS	Semester
PPD-3506	Ecology	5	5
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
<p>This curriculum covers the basics of studying the environment, types of pollution, their risks and ways to treat them, based on knowledge of the ecosystem and its components, the types of environmental communities that exist on land and in the water (running and stagnant, rivers, lakes and estuaries), the concept of the center and the environmental habitat of living organisms, the way they coexist and the nutritional relationships among them, and productivity and transmission or flow Energy through food chains and the food web, or what we call food pyramids and their types, and which one is better in achieving or representing the flow of energy through living organisms, as well as addressing in the curriculum the terrestrial geochemical cycles of the circulation of materials and elements in nature, which represent sedimentary, water and air cycles, determinants and tolerance limits for the spread of organisms live.</p>			

Module 33

Code	Course/Module Title	ECTS	Semester
PPD-3601	Plant diseases	5	6
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
<p>The origin of plant diseases, history of plant diseases, importance of plant diseases, disease occurrence and the aim of its study, general definitions, concept of disease, pathology, parasitism (parasite, degrees of parasitism, ability of parasite to cause infection), classification of plant diseases (parasitic and non-parasitic), reveal Disease = disease course, symptoms and signs.</p>			

Module 34

Code	Course/Module Title	ECTS	Semester
PPD-3602	Weeds and methods of control them	5	5
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
<ul style="list-style-type: none"> • This curriculum covers the basics of studying Controlling weeds in forage crop production may involve a wide range of techniques. Nevertheless, virtually all weed control methods may be classified into one or more of five main categories. The 5 general categories of weed control are: • Preventative Weed Control • Cultural Weed Control • Mechanical Weed Control • Biological Weed Control • Chemical Weed Control 			

Module 35

Code	Course/Module Title	ECTS	Semester
PPD-3603	Biochemistry	5	6
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
<p>General introductory course of biochemistry. This part includes coverage of chemical concepts related to vitality (chemical bonds, functional groups, chemical balance, and energy), building blocks for cell components, water structure and properties, regulators, structure and properties of amino acids, peptide bond, protein structure, structural and functional classification of proteins, and an introduction. About enzymes and metabolism.</p>			

Module 36

Code	Course/Module Title	ECTS	Semester
PPD-3604	Mycology 2	5	6
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
This curriculum covers the study of the basic concepts of fungi, their economic importance in different aspects of life, and methods of classifying these organisms.			

Module 37

Code	Course/Module Title	ECTS	Semester
PPD-3605	Beekeeping	5	6
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
This course introduces the biology of the honey bee, beekeeping tools and protective gear, seasonal hive management, identification of and treatment options for honey bee diseases, and honey extraction.			

Module 38

Code	Course/Module Title	ECTS	Semester
PPD-3606	Bio Techniques	5	6
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46

Description

The study of the science of biotechnology is of great importance, whether from the academic or applied aspects.. The science of life technologies is one of the sciences emanating from the science of life of biotechnologies as well as cloning, genetic imprinting and genetic engineering. The progress of cell life science has depended on the innovation of new techniques in research, and related It includes innovations that included laboratory tools and devices.

Module 39

Code	Course/Module Title	ECTS	Semester
PPD-4701	Pesticides	5	7
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46

Description

The curriculum deals with the study of Pesticides refer to insecticides, mineral oils, herbicides, fungicides and bactericides, fungicides, plant growth regulators, rodenticides and any other substance or mixture of substances intended for preventing, destroying or controlling any pest, including vectors of human or animal disease, unwanted species of ...

Module 40

Code	Course/Module Title	ECTS	Semester
PPD-4702	Insects ecology	4	7
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	2	64	36

Description

This curriculum covers the basics Insect ecology is the study of how insects interact with the environment. The environment consists of both physical characteristics (abiotic) and other organisms (biotic). Insects are natural components of forests and perform a variety of

essential functions that help maintain forests as ecosystems. As consumers of forest products, people sometimes compete with insects for forest resources.

Module 41

Code	Course/Module Title	ECTS	Semester
PPD-4703	Field crop diseases	5	7
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
<p>The curriculum deals with the study Crop diseases: The student must learn about the most important diseases that affect field crops, as well as methods of control and prevention</p> <p>In addition to knowing the most important pathogens, their classification, disease cycles, methods of dispersing pathogens, the mechanism of infection, and methods of disease transmission.</p>			

Module 42

Code	Course/Module Title	ECTS	Semester
PPD-4704	Vegetable crop diseases	5	7
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
<p>The curriculum deals with the study Vegetable crop diseases: The student must learn about the most important diseases that affect Vegetable crop, as well as methods of control and prevention</p>			

In addition to knowing the most important pathogens, their classification, disease cycles, methods of dispersing pathogens, the mechanism of infection, and methods of disease transmission.

Module 43

Code	Course/Module Title	ECTS	Semester
PPD-4705	Agriculture Mite	5	7
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
<p>The curriculum deals with the study “Mite” is a term commonly used to refer to a group of insect-like organisms, some of which bite or cause irritation to humans. While some mites parasitize animals, including man, others are scavengers, some feed on plants, and many prey on insects and other arthropods.</p>			

Module 44

Code	Course/Module Title	ECTS	Semester
PPD-4706	Field crop insects	5	7
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			

During this course, the student learns the most important types of insect pests that affect agricultural and Field crop insects and their quantitative and qualitative damage to the stored crop, in addition to the correct methods of prevention and various control methods.

Module 45


Code	Course/Module Title	ECTS	Semester
PPD-4707	seminars	1	7
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
1		25	
Description			
<p>During this course, the student learns how to present results, research, and reports, and break down barriers between himself and the recipient, in addition to training the student on how to deliver, present, continue speaking, and answer questions.</p>			

Module 46

Code	Course/Module Title	ECTS	Semester
PPD-4801	Fruit diseases	5	8
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)

2	3	79	46
Description			
<p>The curriculum deals with the study Fruit diseases: The student must learn about the most important diseases that affect Fruit tree, as well as methods of control and prevention</p> <p>In addition to knowing the most important pathogens, their classification, disease cycles, methods of dispersing pathogens, the mechanism of infection, and methods of disease transmission.</p>			

Module 47

Code	Course/Module Title	ECTS	Semester
PPD-4802	Storages pests	5	8
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
 <p>During this course, the student learns the most important types of pests that affect stored agricultural crops, whether they are insect pests or pathogens, and their quantitative and qualitative damage to the stored crop, in addition to the correct storage methods and various control methods.</p>			

Module 48

Code	Course/Module Title	ECTS	Semester
PPD-4803	Horticulture Insects	5	8

Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
<p>During this course, the student learns the most important types of insect pests that affect agricultural and horticultural crops and their quantitative and qualitative damage to the stored crop, in addition to the correct methods of prevention and various control methods.</p>			

Module 49

Code	Course/Module Title	ECTS	Semester
PPD-4804	Biological control	5	7
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
<p>During this course, to obtain the needed natural enemies, we turn to classical biological control. This is the practice of importing, and releasing for establishment, natural enemies to control an introduced (exotic) pest, although it is also practiced against native insect pests.</p>			

Module 50

Code	Course/Module Title	ECTS	Semester
PPD-4805	Integrated pest management	3	8
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)

2		33	42
Description			
<p>PRINCIPLES OF INTEGRATED PEST MANAGEMENT This course is designed to introduce students to the theory and practice of Integrated Pest Management programs in a wide range of agricultural, horticultural, and landscape settings. The diverse pests to be covered include: insects, nematodes, plant pathogens, vertebrates, and weeds. Concepts to be covered include how the different methods of control (biological, chemical, cultural, genetic, and mechanical) can be integrated into a sustainable management program.</p>			

Module 51

Code	Course/Module Title	ECTS	Semester
PPD-4806	Viruses	5	8
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	79	46
Description			
<p>This course includes an explanation of the most important characteristics of plant viruses, their classification, the most important diseases they cause in plants, methods of transmission, and resistance to those diseases.</p>			

Module 52

Code	Course/Module Title	ECTS	Semester
PPD-4807	Research Project	2	8

Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
	2	25	25
Description			
<p>The subject of the research project is considered one of the ancient and approved curricula in most of the academic courses of the humanities and scientific faculties, as it aims to introduce the student to the terminological concept of scientific research and to identify its methods and methods of adopting them in writing research in general and graduation research in particular to plan for himself a research methodology that he adopts in the event of his attempt to create a research Outside the academic framework, we also focus in our study on how to use some of these approaches in an applied manner, such as building hypotheses, imagining the research model, drawing the relationships and influence between variables, methods of referring to sources, formulating conclusions and recommendations, and the logical sequence in the transition between topics and to serve the hypotheses. To be discussed research completed at the end of the academic year.</p>			

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