



Academic Program Description Form

University Name: . University of Mosul...

Faculty/Institute: College of Agriculture and forestry....

Scientific Department: plant protection....

Academic or Professional Program Name: Bachelor of Plant Protection.

Final Certificate Name: Bachelor's Degree in Plant Protection

Academic System: ... courses

Description Preparation Date: 30/4/2025

File Completion Date: 30/4/2024

Signature:

Head of Department Name: Assistant Prof. Dr.

Firas Kadhim Al-Juboori

Date: 30/4/2025



أ.د. علي فاروق المصايدري
معاون العميد للشؤون العلمية

Signature:

Scientific Associate Name: Prof. Dr.

Ali Farouk Al-Maathedi

Date:

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Assistant Lecturer : Oday Abdulhadi Adday

Quality Assurance Unit Head : Asst. Dr. Ramia Amer Khalil



Date:

Signature:

أ.د. علي فاروق المصايدري
عميد كلية الزراعة والغابات

Approval of the Dean : Prof. Dr. Ali Farouk Al-Maathedi

1. Program Vision

To be a leading educational institution in the field of integrated pest management for a safe and sustainable health and environment.

2. Program Mission

Building an agricultural engineer capable of providing advice, expertise and services in the field of plant protection, contributing to the advancement of the agricultural reality.

3. Program Objectives

1- Preparing and training specialized scientific cadres in the field of plant protection to contribute to the advancement of agricultural reality in light of climate change.

2- Conducting applied and academic scientific research to solve the problems facing Iraqi farmers and providing the public and private sectors with scientific advice and expertise to solve the problems facing agricultural production.

3- Identifying, diagnosing, and controlling local and invasive pests affecting economic crops, in addition to raising beneficial insects to enhance agricultural production.

4- Organizing seminars and workshops to present the results of scientific research targeting agricultural and agricultural extension departments, as well as farmers, and developing future plans and management programs for important insects and plant diseases affecting strategic crops.

5- Promoting environmental sustainability by adopting sustainable agricultural methods that conserve natural resources, reduce environmental pollution, and raise awareness of the importance of preserving biodiversity in agricultural systems.

4. Program Accreditation

The application for program accreditation has been submitted.

5. Other external influences

Family problems affecting students negatively impact their academic performance.

Extracurricular activities assist students in achieving greater success in applying the academic program.

Students' economic situation and their involvement in work to earn money negatively affect their academic performance.

The academic proficiency of students from their preparatory studies is one of the most important indicators of excellence in academic program performance.

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements	11	20	%11.42	Basic
College Requirements	13	41	%23.42	Basic
Department Requirements	34	121	%65.16	Basic
Summer Training	pass	pass	pass	Basic
Other	-	-	-	-

* This can include notes whether the course is basic or optional.

7. Program Description				
Year/Level	Course Code	Course Name	Credit Hours	
2024-2025 First year First semester	PRHS116	Principles of Horticultural Science	2 theoretic al	3 practical
	PRPE122	Principles of Entomology 1	2 theoretic al	3 practical
	PAEC115	Principles of Agricultural Economy	2 theoretic al	-
	GEZO123	General Zoology	2 theoretic al	3 practical
	MATH104	Mathmatics	2 theoretic al	-
	DEHR100	Democracy and Human Rights	2 theoretic al	-
	COMA103	Computer Application 1	2 theoretic al	-
2024-2025 first year second semester	PRPE124	Principles of Entomology 2	2 theoretic al	3 practical
	ORCH105	Organic Chemistry	2 theoretic al	3 practical
	PRSS113	Principles of Soil Science	2 theoretic al	3 practical
	GEBO119	General Botany	2	3

			theoretic al	practical
	ENGL101	English Language 1	2 theoretic al	-
	ARAL102	Arabic Language 1	2theoreti cal	-
2024-2025 second year first semester	PLPH210	Plant Physiology	2 theoretic al	3 practical
	PLTA218	Plant Taxonomy	2 theoretic al	3 practical
	PAEX206	Principles of agricultural extension	2 theoretic al	3 practical
	PRMB205	Principles of Microbiology	2 theoretic al	3 practical
	STAT109	Statistical	2 theoretic al	3 practical
	PRME219	Protection Machines and Equipment	2 theoretic al	3 practical
	PRAP114	Principles of Animal Production	2 theoretic al	3 practical
	ENGL201	English Language 2	2 theoretic al	-
	COMA203	Computer Application 2	2 theoretic al	-
	CBAP200	Crimes of the defunct Baath Party	2 theoretic al	-
2024-2025 second year second semester	PLNU214	plant nutration	2 theoretic al	3 practical
	TAIN220	Taxonomy of Insects	2 theoretic al	3 practical
	PRFC112	Principles of Field Crops	2 theoretic al	3 practical
	MEVI221	Medical and Veterinary Insects	2 theoretic	3 practical

			al	
	ANCH107	Analytical Chemistry	2 theoretic al	3 practical
	ARAL102	Arabic Language 2	2 theoretic al	-
2024-2025 Third year First semester	BICH204	Biochemistry	2 theoretic al	3 practical
	GENT212	Genetics	2 theoretic al	3 practical
	DAAE302	Design and analysis of agricultural experiments	2 theoretic al	3 practical
	MYCO316	Mycology 1	2 theoretic al	3 practical
	INSP317	Insect structure and Physiology	2 theoretic al	3 practical
	ENCL318	Environment and climate	2 theoretic al	3 practical
2024-2025 Third year second semester	PLBR314	Plant Breeding	2 theoretic al	3 practical
	WECM303	Weeds and Control methods	2 theoretic al	3 practical
	PLDI319	Plant diseases	2 theoretic al	3 practical
	MYCO320	Mycology 2	2 theoretic al	3 practical
	APIC312	Apiculture	2 theoretic al	3 practical
	NEMA321	Nematology	2 theoretic al	3 practical
2024-2025 Fourth year	TEBIO322	Technology Biochemistry	2 theoretic al	3 practical
	FICD363	Field Crops Diseases	2 theoretic	3 practical

First semester			al	
	PEST417	Pesticide	2 theoretic al	3 practical
	INEC418	Insect Ecology	2 theoretic al	3 practical
	STPP419	Stored Products Pests	2 theoretic al	3 practical
	VEPA420	Vegetable Pathology	2 theoretic al	3 practical
	BICO421	Biological control	2 theoretic al	3 practical
	REPR402	Research Project 1	-	3 practical
2024-2025 Fourth year second semester	FRPA422	Vegetable Pathology	2 theoretic al	3 practical
	PVIR423	Plant Virology	2 theoretic al	3 practical
	FICI424	Field Crops Insects	2 theoretic al	3 practical
	AGAC425	Agricultural Acarology	2 theoretic al	3 practical
	HOIN426	Horticultural Insects	2 theoretic al	3 practical
	INPM427	Integrated Pests Management	2 theoretic al	3 practical
	REPR403	Research Project 2	-	

8-program learning output

Knowledge

A1	A1 The student must be able to demonstrate sound knowledge and understanding of the Arabic language, teach it, develop it, and generalize its use as a scientific and educational language in various scientific and cognitive fields.
A4	A4 The student must be able to demonstrate sound knowledge and understanding of the English language, teach it, disseminate it, develop it, and use it for scientific and educational purposes in various scientific and cognitive fields.
A5	A5 The student should be able to explain biodiversity, its importance, and how to preserve natural resources in the environment
A6	A6 The student should be able to recognize the basics of basic and applied sciences, modern

	technologies related to agriculture and food, and the principles of planning and implementing agricultural practices.
A7	A7 The student should be able to explain the basics of applied sciences related to agricultural sciences, food, natural resources, environment, and biological systems.
A9	A9 The student should be able to explain the basics of agricultural engineering and the principles of planning and implementing agricultural practice
A10	A10 The student should be able to understand the division of pathogens (fungi, bacteria, viruses and nematodes) and agricultural pests (insect and animal) and the damage resulting from them in affecting plants and their productivity during the stages of production, transportation and storage.
A11	A11 The student should be able to explain the basics of integrated management of various pests and pathogens and the most important modern methods used for control.
A15	A15 The student should be able to explain the principles of planning and implementing agricultural practices and know what the market needs through analyzing supply and demand prices.
A16	A16 The student should be able to explain the stages and basic elements of planning and implementing agricultural and cultural practices and activities in agricultural societies.
A17	A17 The student should be able to explain the principles and theories of basic sciences related to agriculture and rural development
A18	A18 The student should be able to compare what the market needs by analyzing supply and demand prices.
A19	A19 The student should be able to explain the relationship of macro and microeconomics and statistics to agricultural production
A20	A20 The student should be able to explain the principles of basic and applied sciences and modern technologies related to agricultural, land, water, and environmental sciences.
X	A21 The student should be able to describe practical developments in the field of land sciences and related sciences
A22	A22 The student should be able to explain environmental issues and problems related to the land, water and environment sectors
A23	A23 The student should be able to classify the types of agricultural equipment and devices, their areas of use, mechanical systems, and water pumps used in agricultural production.
A24	A24 The student should be able to explain the principles of planning and implementing agricultural practices and appropriate scientific methods in treating soil and water according to quality and food safety standards.
A26	A26 The student should be able to enumerate the chemical groups of pesticides, taking into account local and international legislation and controls that are informed by safety standards for their use and their impact on the quality and safety of agricultural and food products.
A40	A40 The student should be able to explain the principles and theories of basic sciences related to agriculture, food and rural development.
A41	A41 The student should be able to explain the structure of living organisms in terms of cells, plant tissues, organs and their functions, and explain the divisional and structural characteristics of field crops.
A42	A42 The student will be able to identify the methods of crop protection and integrated management of pests that affect field crops and pastures.
A43	A43 The student should be able to explain soil and water management methods and appropriate agricultural practices for field crops and pastures that preserve them and prevent their deterioration.
A44	A44 The student should be able to explain the methods and objectives of raising field crops,

4	managing and preserving genetic assets, and explaining the biological techniques used to improve crops.
A4 5	A45 The student should be able to determine the environmental requirements and agricultural practices necessary for the growth and production of crops and their relationship to the physiology of growth, leading to the management of crops for their entry as raw materials in industry.
A4 6	A46 The student should be able to become familiar with basic and applied sciences related to agriculture and food, and become familiar with field crop production systems and pasture management, especially under conditions of drought and rain-fed agriculture.
A4 7	A47 The student should be able to explain basic and applied concepts, knowledge, and modern techniques related to agriculture and food and their relationship to animal, poultry, and fish nutrition.
A5 1	A51 The student should be able to explain the basics of raising honey bees, their products, and silkworms
A5 2	A52 The student should be able to become familiar with the principles of basic and applied sciences and modern techniques related to agriculture, horticulture and food principles.
A5 3	A53 The student should be able to recognize the types of horticultural crops and the techniques of production, improvement, handling, storage and marketing of different horticultural crops.
A5 4	A54 The student should be able to explain the scientific principles and methods in using modern technologies in the quantitative and qualitative improvement of horticultural products and their various techniques, and exploiting all available plant resources.
A5 5	A55 The student should be able to classify horticultural crops according to their botanical and horticultural characteristics and uses.
A5 8	A58 The student should be able to identify forests and other tree species, their distribution, and the plants and wildlife associated with them
A6 0	A60 The student will be able to explain ecological concepts and principles including the structure and function of ecosystems, plant and animal communities, competition, diversity, population dynamics, succession, disturbances, and nutrient cycling.
A6 8	A68 The student should be able to understand how mathematical programming techniques and regional impact analyzes can be used in making decisions related to forests
A6 9	A69 The student will be able to understand how resource conditions and social demands interact under various market and non-market structures to influence the valuation and availability of forest-related goods and services.
SKILLIS	
B1	B1 The student should be able to practice various thinking skills in a systematic and positive manner in diagnosing the problems and issues he faces while working and proposing appropriate solutions to them.
B2	B2 The student should be able to express his ideas clearly and objectively, and interact positively with his colleagues, superiors, and subordinates at work.
B3	B3 The student should be able to discuss and evaluate studies and research related to societal issues in a systematic and objective manner
B5	B5 The student should be able to propose solutions to problems related to systems, practices, and machines that interact with humans, plants, animals, microorganisms, and biological materials.
B6	B6 The student should be able to distinguish the structure of living organisms in terms of cells, tissues, organs, their functions, and the interactions that occur in them.
B9	B9 The student will be able to propose methods for analyzing data and information and interpreting agricultural phenomena using applied programs to solve agricultural problems

B10	The student will be able to predict the status of plant pests and diseases, specifying methods for monitoring and investigating field counts, the percentage and severity of infection.
B12	The student should be able to carry out a market feasibility study for agricultural commodities through financing, credit, and marketing
B13	The student should be able to analyze with a scientific methodology data and information related to agricultural problems to find the most appropriate solutions
B14	The student should be able to plan and manage agricultural projects free of diseases and pests in accordance with quality and safety standards.
B15	The student should be able to manage agricultural projects in accordance with quality and safety standards and free of diseases and pests.
B17	The student should be able to design the necessary control programs to prevent the infection of pests and pathogens and limit their spread in a way that maximizes agricultural productivity and produces safe food.
B18	The student should be able to analyze data and information related to agricultural problems in the land, water and environment sectors to find the most appropriate solutions for them.
B19	The student should be able to design appropriate production plans and irrigation projects to achieve food and water security and serve the goals of sustainable development.
B20	The student will be able to analyze the factors that have a mutual influence between water scarcity, desertification, and climate change
B21	The student will be able to design programs for the responsible and multiple use of primary and secondary agricultural products, organic waste, and natural resources (soil, water, air, and energy)
B23	The student should be able to demonstrate easy guidance and education methods to change behavior and increase awareness for various individuals and groups.
B25	The student will be able to discuss nutritional needs and prepare and plan meals for different age groups in health and illness
B32	The student should be able to devise experimental designs and collect and analyze data under field, field, and laboratory conditions.
B33	The student should be able to propose a research plan in the field of field crops while excelling in writing reports with high efficiency and achieving the ability to obtain logical conclusions.
B25	The student will be able to discuss nutritional needs and prepare and plan meals for different age groups in health and illness
B40	The student should be able to diagnose the reality of horticultural production, and use scientific and technical methods to solve its problems and improve it.
B41	The student should be able to develop techniques for producing horticultural crops and methods for trading and marketing them.
B42	The student should be able to plan successfully to adapt different gardening techniques in a way that suits quality and safety standards and diverse local conditions.
B43	The student should be able to employ the systematic scientific method in making appropriate decisions to solve various horticultural problems.
B46	The student should be able to diagnose the problems of agricultural production and mechanization of small holdings and propose appropriate solutions to them.
B47	The student should be able to solve problems using arithmetic, algebraic, geometric, statistical, or mathematical methods.
Professional (practical) skills	
C1	The student will be able to design scientific experiments to solve agricultural problems by applying modern technologies related to agricultural practices and food production.

C2	C2 The student should be able to diagnose the causes of plant diseases and pests and their resulting symptoms and practice good agricultural treatments for integrated pest management to maximize agricultural productivity and produce safe food.
C3	C3 The student should be able to prepare scientific research and studies in his field of specialization in Arabic and English.
C5	C5 The student should be able to exercise his patriotic and national role through the culture of peaceful coexistence
C6	C6 The student should be able to use laboratory equipment and computers to predict the outbreak of plant pests and epidemics and operate and maintain agricultural machinery used in combating pests and plant diseases.
C7	C7 The student should be able to efficiently employ modern technologies related to agricultural practices and food production to develop and improve the food product and apply the correct specifications and standards in the field of food science and nutrition, analysis and composition of food and the changes that occur in it.
C8	C8 The student will be able to develop practical methods suitable for the biological control of pests and plant pathogens and the breeding of parasites, predators and antagonistic organisms to find the best appropriate solutions to combat them.
C9	C9 The student should be able to carry out applied research, and use statistical programs in experimental design and data analysis in the field of food and nutrition research.
C10	C10 The student will be able to design extension programs to address agricultural phenomena and problems
C11	C11 The student should be able to practically carry out some scientific research on pests, pathogens and their hosts to extract resistance from them during all stages of production and storage to achieve sustainable agricultural development.
C12	C12 The student should be able to apply modern technology in developing the agricultural and food fields and investing in economic insects
C16	C16 The student should be able to collect data related to agricultural phenomena and problems
C17	C17 The student should be able to plan the implementation of agricultural extension programs and campaigns for the development of rural communities, using the scientific method.
C20	C20 The student should be able to apply modern and appropriate technology in agricultural practices, food production, apiary management, honey production, pest control, and attention to silkworms for silk production.
C23	C23 The student should be able to apply the theories of how engines and pullers operate and how to use and manufacture them
C24	C24 The student should be able to be proficient in using modern technologies, managing agricultural machinery and equipment, irrigation and drainage systems, agricultural facilities, greenhouses, automated service strategies, and agricultural mechanization.
C38	C38 The student should be able to conduct statistical and economic analysis of the local market to plan and develop the agricultural sector.
C39	C39 The student should be able to plan the implementation of agricultural extension programs and campaigns for the development of rural communities, using the scientific method.
C40	C40 The student should be able to manage the yield and raw materials of various field crops and perform the necessary tests to enter them into the food and other industries.
C41	C41 The student should be able to diagnose diseases and pests of field crops and apply an integrated management system to combat them.
C45	C45 The student will be able to manage field crop production operations under drought conditions, rain-fed agriculture, and irrigated agricultural systems using modern technologies.

C46	C46 The student should be able to practice good agricultural practices that maximize agricultural productivity, livestock and fisheries, produce safe food, and solve fertility problems and low production.
C48	C48 The student should be able to use agricultural resources in an optimal way in the livestock and fisheries sector and benefit from investment projects to reach sustainable agricultural development.
C49	C49 The student should be able to apply modern technology related to agricultural practices, food production, and management of livestock and fisheries farms to implement good scientific research for genetic improvement, production, and preservation of genetic assets.
C50	C50 The student will be able to estimate pesticide residues in plants, their products, and samples taken from the environment, to diagnose symptoms of pesticide poisoning, and apply first aid.
C51	C51 The student should be able to practically carry out some scientific research on pests, pathogens and their hosts to extract resistance from them during all stages of production and storage to achieve sustainable agricultural development.
C57	C57 The student will be able to apply basic methods and applications of mathematics, linear programming and statistics to analyze and solve problems related to forest sciences.
C58	C58 The student will be able to master concepts related to tree pests and diseases, and use them to evaluate the health/productivity of trees and forests.
C60	C60 The student will be able to use computers and other technologies for communication and measurement
	Communication and IT skills (general skills)
D1	D1 The student will be able to use computer programs to analyze and present data and information in the agricultural field
D2	D2 The student should be able to participate effectively in consolidating the concepts of coexistence, a culture of tolerance, and pluralism in practice and application.
D3	D3 The student should be able to communicate fluently and effectively in Arabic and English in his field of specialization
D4	D4 The student should be able to develop his cognitive, professional and research capabilities in his field of specialization on his own
D5	D5 The student should be able to acquire the skills of planning, organizing, managing and organizing time, and leading groups in a satisfactory manner
D7	D7 The student should be able to work with his colleagues in a team spirit, and be able to communicate with others
D8	D8 The student should be able to present information and explain phenomena orally or in writing
D9	D9 The student should be able to be proficient in self-learning, writing reports, and working within the agricultural team
D10	D10 The student should be able to demonstrate self- and continuous learning capabilities, to develop his knowledge and professional skills
D11	D11 The student should be able to master methods of problem solving and time management in the agricultural and extension fields
D12	D12 The student should be able to use information technology to obtain data and information easily and conveniently in a way that serves professional practice and enables him to present information in correct scientific ways.
D13	D13 The student should be able to master continuous self-education and identify personal educational needs
D15	D15 The student should be able to work within a multicultural work team, and be able to understand the behavior of groups

Attitudes/beliefs (values, autonomy, responsibility)	
E1	E1 The student will be able to suggest ways to preserve the environment and natural resources of the local community
E2	E2 The student should be able to contribute to enhancing understanding and awareness of the meaning of professionalism at work and to bear legal, ethical and social responsibility.
E3	E3 The student should be able to deal efficiently and effectively in the field of work to transfer knowledge and skills to farmers and the general public
E4	E4 The student should be able to contribute to spreading awareness among farmers and community members to reduce the use of agricultural pollutants
E5	E5 The student must be able to bear responsibility for completing work efficiently and be keen on professional ethics
E6	E6 The student should be able to analyze and think critically within Eastern and Arab cultural traditions
E7	E7 The student should be able to evaluate ethical issues using critical thinking skills

9. Teaching and Learning Strategies

- Interactive lecture
- Brainstorming
- Dialogue and discussion
- Field Training
- Practical exercises
- Field project
- Self-education

10. Evaluation methods

Short tests, quarterly exams, evaluation of reports, evaluation of discussion, evaluation of research reports

11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Professor	Plant protection	Insect Plant	-	-	6	-

		diseases				
assistant professor	Plant protection	Insect Plant diseases	-	-	5	-
lecturer	Plant protection	Insect Plant diseases	-	-	6	-
assistant lecturer	Plant protection	Insect Plant diseases	-	-	8	-

Professional Development

Mentoring new faculty members

Developing skills to enhance self-confidence, a positive orientation towards a culture of quality and requirements, enhancing a sense of responsibility, believing in the spirit of teamwork and its role in achievement, and developing a sense of function and moral conscience.

Evaluating academic courses and plans in coordination with academic departments to ensure that they meet labor market requirements.

Possessing the skills of guiding and guiding students.

The ability to produce educational materials according to quality specifications, including academic curricula, media, lectures and educational supplies

Professional development of faculty members

Developing educational skills through diversifying teaching methods, dealing positively with and practicing feedback, using educational techniques, and focusing on developing intellectual and competitive skills among students.

Developing skills to address problems and phenomena affecting the practical educational process in the college

Developing the ability to evaluate academic courses and plans in coordination with academic departments to ensure that they meet labor market requirements.

Developing the ability to measure the satisfaction of beneficiaries (faculty members, students, the community) with the practical educational and research process at the college.

Evaluating tests and means of evaluating students, and preparing reports to follow up on their results

12. Acceptance Criterion

- ✓ Students are accepted into college programs centrally through the Central Admissions Department at the Ministry of Higher Education and Scientific Research and according to the application channels approved by the Ministry.
- ✓ Students are distributed among the department's program according to the grade point

average and the students' desire.

- ✓ He must be physically fit and healthy based on the medical examination report
- ✓ The advanced student's average is based on the minimum averages approved by the Ministry

13. The most important sources of information about the program

- ✓ The primary source of program information is the minutes of the committee of experts of the departments corresponding to the Ministerial Department of Plant Protection, which is accredited as a scientific body by the Committee of Deans of Faculties of Agriculture.
- ✓ The study prepared by the Scientific Committee and the Department Council and approved by the College Council, which includes proposals for modernizing agricultural specializations and simulating the three most important corresponding scientific departments accredited internationally.
- ✓ Local and regional market needs

14. Program Development Plan

A plan was developed to develop the program after studying the internal review notes by the faculty members, the quality assurance committees, the department's scientific committee, the department council, the external review of the program, and the students' notes through analyzing the results of student questionnaires for the courses. Notes from the academic advisors and analysis of data from the college's questionnaire committee questionnaires and examination question evaluation reports for all courses. The program is as follows:

- ☐ Inadequate practical training
- ☐ The lack of a clear mechanism to help struggling students and motivate outstanding students
- ☐ Students' lack of familiarity with university regulations governing educational practice
- ☐ Success rates for some courses do not conform with the normal distribution chart

- **Please tick the boxes corresponding to the individual program learning outcomes under evaluation.**