Program Catalogue | 2024-2025 | Study Program Guide

University of Mosul

First Cycle – Bachelor's degree (B.Sc.) **Plant Protection Sciences**

Plant Protection Sciences

Contents of Table

1. Mission& Vision Statement

Vision***Statement***

College of Agriculture and Forestry, / Faculty members in the Department of Plant Protection University of Mosul believe that students gain an understanding of the specialty of plant protection through a combination of coursework, laboratory experiments, research, and thods enables students to develop a balanced This combination of teaching me . fieldwork understanding of the scientific and practical methods used by plant protection specialists to The . achieve good plant protection without harming the environment and its components lant Protection program create a close working relationship small class sizes within the P . between faculty and students in an informal setting

Mission***Statement***

quality information, expertise, -To build an agricultural engineer capable of providing high nt protection, research, and development. This is achieved and services in the field of pla through capacity building to coordinate efforts and activities in managing, diagnosing, monitoring, and controlling pest outbreaks, as well as developing economically and gement techniques. The goal is to serve as a national center for environmentally sound mana gathering information, conducting research, and formulating strategies related to pest regulation and management. It also aims to serve as a channel for communication, knowledge support for activities provided by local and international universities, institutes, transfer, and organizations, and bodies to advance our agricultural reality and confront the challenges of .climate change

2. **Program** Specification

Program code:	BSc- Agriculture	**ECTS**	240
Duration:	4 levels, 8 semesters	**Method of Attendance:**	Full Time

Plant protection is a broad and attractive field, offering an exciting opportunity to study the relationship between plants and the pests that attack them . Our program focuses on developing effective solutions to protect agricultural crops while maintaining a healthy environment . This major attracts a diverse group of students; while some find it a passion, of the first and second others see it as an entry point into a more specialized field . By the end years, all students have the opportunity to transition into specialized tracks in entomology and plant pathology . Levels 1 and 2 introduce students to the fundamentals of various n for progression to all programs within the agricultural sciences, providing a strong foundatio supported specialized modules at -Agriculture Program portfolio, preparing them for research levels 3 and 4. As a result, graduates of the Faculty of Agriculture receive training that ow research can impact education, in line with the mission of enables them to understand h . the university and the college

The Plant Protection program allows students in levels 3 and 4 to select more than half of that reflect the their credits, with the requirement to choose a combination of courses diversity of insect and disease pests and their relationship to plants and the environment, including methods and techniques for controlling them, ensuring the breadth of knowledge n degree . This allows students to expected of a graduate with a Bachelor of Plant Protectio develop their broad interests in pest management science . Courses are selected in consultation with their advisors . A research culture is developed and reinforced from the either into lecture courses or taught in outset through practicals, which are integrated dedicated practical courses, in addition to research seminars and specialized lessons . At level . all students undertake a field or laboratory research project , 4

a student advisor, ensuring continuity and Academic lessons at levels 1 and 2 are guided by progressive guidance . These lessons include various workshops aimed at teaching basic skills, such as library use and presentation techniques, followed by assessment exercises such oviding opportunities to practice these skills in the context of a as essays and presentations, pr . specific topic

In addition, training outside Iraq and summer courses are offered, with individual needs . discussed with the appropriate mentor and met whenever possible

3. **Program** Objectives

:The plant protection program aims to

Preparing qualified personnel to address the challenges facing agriculture, including plant The program . pests and diseases, and to maintain agricultural production and quality focuses on providing students with the knowledge and skills necessary to identify pests and . diseases and develop effective and safe control strategies

4. **Student** Learning Outcomes

No.	Learning Output Code	Learning outcomes
1	LO#4.A1	The student acquires foundational knowledge in the sciences related to plant protection, including biology, chemistry, physics, environmental science, and plant taxonomy.
2	LO#2 B1	The student is able to distinguish between various types of plant pests and diseases based on their morphological and biological characteristics.
3	LO#1 C1	The student applies systematic scientific principles in the control of plant pests and diseases through both theoretical and practical activities.
4	LO#4 B2	The student employs modern techniques and models to develop effective and sustainable solutions in the field of plant protection, while adhering to principles of natural resource conservation.
5	LO#5 C3	The student identifies environmental factors affecting plant health and productivity, proposing strategies grounded in contemporary technologies to address them.
6	LO#6 C1	The student designs and conducts field and laboratory experiments to accurately diagnose and systematically monitor plant pests and diseases.
7	LO#6 B3	The student actively participates in multidisciplinary research teams within the field of plant protection, fully adhering to professional ethics and scientific standards.
8	LO#5 C2	The student comprehends current scientific information related to plant protection and utilizes it to prepare clear analytical reports detailing approved control methods and their efficacy.
9	LO#6 C2.	The student adheres to ethical and professional principles, applying relevant legislation and regulations

		related to plant protection.
10	LO#3.C3	The student practically applies plant protection methods, with thorough risk assessment to ensure effectiveness and safety.
11	LO#6 C4	The student evaluates the impact of plant protection measures on public health, the environment, and safety in accordance with applicable legal and regulatory standards.

:to be able to After completing the Plant Protection Program, the graduate is expected

Learning Outcome 1

Diagnosing plant diseases and pests and providing the student with the ability to identify and .diagnose plant diseases and pests using field and laboratory methods

Learning Outcome 2

develop effective prevention plans to combat pests Design pest management strategies and .and diseases using various techniques such as chemical and biological control

Learning Outcome 3

Understand the impact of pesticides on the environment and study the effects of pesticides and chemicals on the environment and health, while learning ways to reduce the risks .associated with them

Learning Outcome 4

Familiarity with the scientific techniques and models used to diagnose and control pests and protect natural resources while implementing prevention strategies.

Learning Outcome 5

Apply sustainable agriculture and acquire skills in using sustainable agricultural methods .management and organic farming such as integrated pest

Learning Outcome 6

Conduct scientific research in plant protection and develop scientific research skills in the field of plant protection, including data collection and analysis to reach new solutions to .problems agricultural

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Study units and -6 Evaluation and Credits, Grading and GPA

The University of Mosul follows the Bologna Process and the European Credit System ECTS The total number of credits in the academic program is 240, with 30 credits .(allocated per semester. EachECTS credit corresponds to student workload, hours of 25 .including both structured and unstructured workloads

Credits

Mosul University is following the Bologna Process with the European Credit Transfer System (ECTS) credit system. The total degree program number of ECTS is 240, 30 ECTS

per semester. 1 ECTS is equivalent to 25 hrs student workload, including structured and unstructured workload.

Evaluation

Prior to evaluation, results are classified into two subgroups: "pass" and "fail." :
ed courses. The evaluation system is Therefore, results are not related to students who fail
:defined as follows

Grading

Before the evaluation, the results are divided into two subgroups: pass and fail. Therefore, the results are independent of the students who failed a course. The grading system is defined as follows:

GRADING SCHEME Grading scheme				
Group	**Grade**	Appreciation	**Marks (%)**	**Definition**
Success Group (50 - 100)	A - Excellent	privilege	90 - 100	OutstandingPerformance
	B - Very Good	very good	80 - 89	Above average with some errors Above average with some errors
	C - Good	good	70 - 79	Good with noticeable errors Sound works with notable errors
	D - Satisfactory	middle	60 - 69	Acceptable but with major shortcomings Fair but with major shortcomings
	E - Sufficient	acceptable	50 - 59	minimum standards Meets Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	in - Precipitate process	(45-49)	Needs more work but accreditation has .been granted More work required but credit awarded
	F – Fail	Failed	(0-44)	The amount of work required is .large Considerable amount of work required
Note:				

Decimals higher or lower than 0.5 will be rounded to the nearest whole number (for example, a grade of 54.5 will be rounded to 55, while a grade of 54.4 will be rounded to 54). The has a policy against overlooking "close to passing" grades, so the only adjustment to University .grades awarded by the examiner will be automatic rounding as described above

Number Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone “near-pass fails” so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

Calculate the cumulative grade point averageCGPA

The cumulative grade point average -1CGPA is calculated by multiplying the score of each course by the number of its European unitsECTS and then dividing the total by the total .number of European units for the program

year bachelor's degree−Calculating the cumulative GPA for a 4: CGPA grade of the first course × number of its) =ECTS units) + (grade of the second s units +….. / 240course × number of it

Calculation of the Cumulative Grade Point Average (CGPA)

1. The CGPA is calculated by the summation of each module score multiplied by its ECTS, all are divided by the program total ECTS.

   CGPA of a 4-year B.Sc. degree:

   CGPA = [(1st ^{m} odule score x ECTS) + (2nd ^{m} odule score x ECTS) + ……] / 240

Curricula/Educational Units -6

Curriculum/Modules .6

1 (points 30) First semesterECTS hours 25 =

Semester 1 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	Name of the course	SSWL	USSWL	ECTS	Type	Pre-request
UOM1031	COMPUTER 1	computer1	47	28	3	B	
UOM1040	DEMOCRACY and HUMAN RIGHTS	Democracy and human rights	32	18	2	B	
UOM1021	English Language	English language	32	18	2	B	
MAT1010	MATHEMATICS	mathematics	63	112	7	S	
ACE1020	AGRICULTURE CAREER ETHICS	Agricultural professional ethics	62	63	5	S	
END1030	ENGINEERING DRAWING	engineering drawing	63	87	6	S	
AET1040	AGRICULTRAL ENGINEERING TECHNIQUES TRANSFER	Transfer of agricultural engineering technologies	63	62	5	C	

1 (points 30) Second semesterECTS hours 25 =

Semester 2 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	Name of the material	SSWL	USSWL	ECTS	Type	Pre-request
UOM1011	**Arabic Language**	Arabic	32	18	2.00	B	
BSS1050	**BIOSAFETY and SECURITY**	Biological safety and security	47	28	3.00	S	
AGS1060	**AGRICULTURAL STATISTICS**	Agricultural statistics	78	47	5.00	C	
BIO1070	**BIODIVERSITY**	biodiversity	63	62	5.00	C	
AGI1080	**Agricultural Information Technology**	Agricultural Informatics	63	62	5.00	C	
SUD1090	**SUSTANIBLE DEVELOPMENT**	sustainable development	62	63	5.00	C	
AMT1100	**AGRICULTURAL MARKETING TECHNIQUES**	Agricultural Marketing Technologies	32	93	5.00	C	

1 (points 30) Third semesterECTS hours 25 =

Semester 3 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	Name of the material	SSWL	USSWL	ECTS	Type	Pre-request
UOM1012	**ARABIC LANGUAGE 2 2**	2 Arabic	32	18	2.00	B	
UOM2050	**THE CRIMES OF THE BATH REGIME IN IRAQ**	Baath regime crimes in Iraq	32	18	2.00	B	
IPM2110	**Integrated Pest Management**	Integrated pest management	63	62	5.00	C	
AEM2120	**AGRICULTRAL ENGINEERING PROJECT MANAGEMENT**	Agricultural Engineering Project Management	78	72	6.00	C	
DAE2160	**DESIGN AND ANALYSIS OF EXPERIMENTS**	Design and analysis of experiments	63	62	5.00	C	
APT2140	**AGRICULTURAL PRODUCTION TECHNOLOGIES**	agricultural production technology	63	62	5.00	C	
FTP2150	**FOOD TECHNOLOGIES AND HEALTH AGRICULTRAL PRODUCTS**	Food Technology, Health, and Agricultural Products	63	62	5.00	C	

1 (points 30) Fourth semester ECTS hours 25 =

Semester 4 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	of the Name material	SSWL	USSWL	ECTS	Type	Pre-request
UOM2022	**English Language 2**	2 English	32	18	2.00	B	
UOM2032	**COMPUTER SKILLS2**	2 Computer	47	28	3.00	B	
APT2130	**AGRICULTURAL PRODUCTION MECHANIZATION TECHNIQUES**	Agricultural production mechanization technologies	63	62	5.00	C	
DPF2170	**DESIGN and PLANNING of AGRICULTURAL FACILITIES**	Design and planning of agricultural facilities	63	62	5.00	C	
ECE2180	**Beneficial insects**	beneficial insects	63	62	5.00	C	
AWE2210	**AGRICULTURAL WASTE TREATMENT ENGINEERING**	Agricultural Waste Treatment Engineering	63	62	5.00	C	
AGM2220	**Agricultural Microbiology**	Agricultural microbiology	63	62	5.00	C	

1 (points 30) Fifth semesterECTS hours 25 =

Semester 5 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	Name of the material	SSWL	USSWL	ECTS	Type	Pre-request
RES3210	**REMOTE SENSING**	remote sensing	48	2	2.00	C	
AGC3500	**AGRICULTURE CHEMISTRY**	Agricultural Chemistry	63	12	3.00	B	
PLN3510	**PLANT NEMATODE**	plant nematode	63	62	5.00	C	
ENT3520	**ENTOMOLOGY**	Entomology	63	62	5.00	C	
PMC3530	**PEST MANAGEMENT UNDER PROTECTED CULTIVATION**	Protected Agriculture Pest Managemen t	63	62	5.00	C	
BPD3540	**BACTERIAL PLANT DISEASES**	bacterial plant diseases	63	62	5.00	C	
MYC3550	**MYCOLOGY**	Mycology	63	62	5.00	C	

1 (points 30) Sixth semesterECTS hours 25 =

Semester 6 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	Name of the material	SSWL	USSWL	ECTS	Type	Pre-request
UPM3560	**Urban Pest Management**	Urban Pest Management	48	52	4.00	C	
ITS3570	**INSECT TAXONOMY SYSTEMS**	Insect classification systems	63	62	5.00	C	
CMT3580	**COMMERCIAL MUSHROOM PRODUCTION TECHNOLOGY**	Commercial mushroom production technology	63	62	5.00	C	
PDM3590	**POST-HARVEST DISEASE MANAGEMENT**	Postpartum disease management	63	62	5.00	C	
PDE3600	**PLANT DISEASES AND EPIDEMIOLOGY**	Plant diseases their and epidemics	63	62	5.00	C	
BIO3610	**BIOSTATISTICS**	Vital statistics	63	62	5.00	C	
SEM3260	**Seminars**	seminars	17	8	1.00	C	

1 (points 30) Seventh semesterECTS hours 25 =

Semester 7 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	Name of the material	SSWL	USSWL	ECTS	Type	Pre-request
SPM4620	**STORES PEST TECHNOLOGY AND CONTROL METHODS**	Warehouse pest technology and control methods	63	12	3.00	C	
CPT4630	**CROP PESTS MANAGEMENT TECHNOLOGY**	Crop pests and their control technology	63	62	5.00	C	
WCT4320	**WEED CONTROL TECHNOLOGY**	Jungle control technology	63	62	5.00	C	
NIP4730	**NON-IMSECT ANIMAL PESTS**	insect -Non animal pests	63	62	5.00	C	

PPM4640	**PESTICIDE PREPARATION AND MANAGEMENT**	Pesticide preparation and management	63	62	5.00	C	
BIT4650	**BIOCONTROL TECHNOLOGIES**	Biocontrol technologies	63	62	5.00	C	
AEP4290	**AGRICULTRUAL ENGINEERING PROJECT1**	Agricultural Engineering 1 Project	47	3	2.00	C	

1 (points 30) Eighth semesterECTS hours 25 =

Semester 8 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	Name of the material	SSWL	USSWL	ECTS	Type	Pre-request
AQL4660	**AGRICULTURAL QUARANTINE TECHNOLOGIES AND LEGISLATION**	Agricultural quarantine technologies and legislation	63	12	3.00	C	
PLV4670	**PLANT VIRUSES**	plant viruses	63	62	5.00	C	
IET4680	**INSECT ECOLOGY TECHNIQUES**	Insect environmental technologies	63	62	5.00	C	
OPT4690	**ORCHARD PESTS MANAGEMENT TECHNOLOGY**	Orchard pests and their control technology	63	62	5.00	C	
AGM4700	**Agricultural MITES**	agricultural dream	63	62	5.00	C	
SAT4310	SMART AGRICULTURAL TECHNIQUES	Smart farming technologies	63	62	5.00	C	
AEP4292	**AGRICULTRUAL ENGINEERING PROJECT2**	Agricultural Engineering 2 Project	47	3	2.00	C	

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