Program Catalogue | 2024-2025 |

Wasit University

First Cycle – Bachelor's Degree (B.Sc.) – Plant Protection

Table of Contents |

1. Mission & Vision Statement

Vision Statement

The Department of Plant Protection aspires to be among the best departments in terms of learning and scientific research, providing valuable scientific advice and consultations that contribute to raising agricultural yields to the highest levels and protecting crops from the threat of numerous pests that threaten them, for the benefit of Iraqi society, most notably insects and plant diseases of various kinds.

Mission Statement

• To provide high-quality education that equips students with the scientific knowledge and practical skills necessary for work in the field of insect pest and disease control, research, and public service.

• To promote scientific research in the fields of agricultural pest management and treatment to address current and future challenges.

• To enhance cooperation with industry, government, and communities to ensure the development of pest control methods in a safe, sustainable manner.

• To promote innovation, critical thinking, and lifelong learning among students and plant protection professionals.

2. Program Specification

Program code:	BSc-FS	**ECTS**	240

Duration:	4 levels, 8 Semesters	Method of Attendance:	Full Time

At Level 1, students are introduced to the fundamental principles of the Department of Plant Protection, providing a solid foundation for all programs within the Entomology and Pathology specialization group. At Level 2, core topics related to the chosen specialization are explored, preparing students for the advanced, research-based specialized courses at Levels 3 and 4. Thus, Entomology and Pathology graduates are trained to appreciate the importance of evidence-based learning and understand how research drives innovation in plant protection science, in line with the mission statements of the University and the College.

From Level 2, students can customize their study path by selecting a variety of modules, ensuring a balanced understanding of topics in biotechnology, microbiology, and the taxonomy of insects and plant fungi. This structure allows students to develop their own academic interests while meeting the depth and breadth of knowledge required for graduate study. These modules are selected in consultation with academic advisors.

A research approach is integrated into the program from the outset, through practical laboratory work included in lectures, dedicated practical sessions, research seminars, and small group lessons. There is a mandatory field trip or industrial visit at Level 1, which students must complete to advance to Level 2, with similar optional opportunities at Levels 2, 3, and 4. At Level 4, all students complete an independent research project, which may be a literature review, data analysis, or an experimental project conducted in the laboratory or at an experimental station. Tutoring at Levels 1 and 2 is led by the same tutor, who also serves as a personal academic advisor, ensuring continuity and personalized support. These include workshops to develop key skills such as scientific writing, data analysis, and presentation techniques, followed by assessed tasks such as essays, project proposals, or presentations, providing students with a platform to develop and demonstrate these skills within the context of plant protection.

3. Program Objectives

1. Knowledge among all segments of society about the importance and safety of agricultural products, such as ensuring that crops are free of plant diseases and pesticide residues, etc.

2. Conduct scientific research to develop the agricultural sector, solve its problems, and combat pests, particularly research that contributes to finding alternative solutions to the use of chemical pesticides.

3. Increase agricultural awareness among agricultural workers and disseminate up-to-date information to obtain the best agricultural products.

4. Cooperate with other government agencies, such as extension and research centers and agricultural directorates, to exchange expertise and knowledge and keep abreast of the latest developments in the field of agriculture and plant protection.

5. Work with the public and private sectors, farmers, various organizations, and individuals to develop applications used in the field of plant protection.

4. Student Learning Outcomes

1- The vision, goals, and mission of the department can be achieved through the distinguished staff of the Plant Protection Department and by supporting the production process with the latest research and studies that can contribute to consolidating and increasing the quantity and quality of production in Wasit Province, the governorate with the highest agricultural production density.

2- The department's graduates can be made more skilled and experienced, meeting the requirements of the labor market.

3- The expertise of the teaching staff can be utilized to update the curricula of the academic subjects to meet the requirements of protecting agricultural fields in Wasit Province.

4- The department has a vision: The Plant Protection Department aspires to be among the best departments in learning and scientific research, providing valuable scientific advice and consultations that contribute to raising agricultural production to the highest levels and protecting crops from the threat of numerous pests that threaten them, for the benefit of Iraqi society, most notably insects and plant diseases of various types.

5. Academic Staff

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6. Credits, Grading and GPA

Credits

Wasit 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.

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 مخطط الدرجات				
Group	**Grade**	التقدير	**Marks (%)**	**Definition**
Success Group	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors

(50 - 100)	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب - قيد المعالجة	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note:				

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.

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

7. Curriculum/Modules

Semester 1 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
AGR111	General Chemistry	79	96	7	C	
AGRI112	Principles of Soil	79	96	7	C	
UNIV101	English Language	34	66	4	B	
UNIV103	Computers 1	79	96	7	C	
UNIV104	Democracy and Human Rights	50	25	3	B	
PP-111	Principles of Plant Protection	33	17	2	B	

Semester 2 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
PP121	General Insects	78	97	7	B	
UNI102	Arabic Language	78	97	7	B	
AGR112	Principles of Horticulture	78	97	7	C	
AGR122	Principles of Field Crops	78	47	5	B	
AGR121	Agricultural Economics	32	18	2	B	

PP122	Non-Insect Animals	33	17	2	S	

Semester 3 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request

Semester 4 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request

Semester 5 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request

Semester 6 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request

Semester 7 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request

Semester 8 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request

8. Contact

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Wasit University
جامعة واسط

First Cycle – Bachelor's Degree (B.Sc.) – Plant Protection

بكالوريوس – علوم أغذية

Table of Contents

1. Overview

This catalogue is about the courses (modules) given by the program of plant protection to gain the Bachelor of Science degree. The program delivers (48) 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. يقدم البرنامج (48) مادة دراسية، مع (6000) إجمالي ساعات حمل الطالب و240 إجمالي وحدات أوروبية. يعتمد تقديم المواد الدراسية على عملية بولونيا.

2. Undergraduate Courses 2024-2025

Module 1

Code	Course/Module Title	ECTS	Semester
AGR-111	General Chemistry	8	1
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	3	80	120
Description			
This course introduces students to the fundamental principles, methods, and applications of **analytical chemistry**. It covers both **qualitative** and **quantitative** analysis, focusing on the theory and practice of chemical measurements. Topics include classical methods such as **gravimetric** and **volumetric analysis**, as well as modern instrumental techniques including **spectrophotometry**, **chromatography**, and **electrochemical analysis**. Students will gain hands-on experience in laboratory techniques, data interpretation, error analysis, and the application of analytical methods in real-world contexts, such as environmental, pharmaceutical, agricultural, and industrial analysis. The course aims to develop students' ability to solve chemical problems through analytical thinking, proper experimental design, and accurate data reporting.			

Module 2

Code	Course/Module Title	ECTS	Semester
PP-113	Principles of Protection	8	1
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	3	123	77
Description			
This course provides students with a comprehensive introduction to the **principles of dairy science**,			

focusing on the production, composition, processing, and quality control of milk and dairy products. It covers the **biological and chemical properties of milk**, factors influencing milk yield and quality, and an overview of **dairy herd management**. Students will also study **processing techniques** for various dairy products such as cheese, yogurt, butter, and powdered milk, with emphasis on **hygiene, safety, and quality assurance standards**.
The course integrates both theoretical and practical knowledge, preparing students to understand the role of dairy science in human nutrition, public health, and industry systems.

Module 3

Code	Course/Module Title	ECTS	Semester
WU04	Human Rights and Democracy	2	1
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	0	32	18
Description			
This course introduces students to the basic concepts and principles of **agricultural economics**, focusing on the application of economic theory to the agriculture sector. It explores the **economic behavior of individuals, firms, and governments** in relation to agricultural production, distribution, and consumption. Topics include **supply and demand in agriculture**, **production economics**, **farm management**, **market structures**, **price analysis**, **agricultural policy**, and **resource use in farming**. Special emphasis is placed on the role of agriculture in national economic development and sustainability. Students will learn how to apply economic tools to solve real-world problems in farming, agribusiness, and rural development.			

Module 4

Code	Course/Module Title	ECTS	Semester
WU04	Computer 1	3	1
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	3	37	38
Description			
This course introduces students to the fundamental concepts of **organic chemistry**, which is the study of the structure, properties, composition, reactions, and preparation of compounds containing carbon. Topics include the classification and nomenclature of organic compounds, structure and bonding, functional groups, reaction mechanisms, stereochemistry, and the chemistry of alkanes, alkenes, alkynes, alcohols, acids, esters, amines, and aromatic compounds. The course emphasizes both theoretical understanding and practical applications, especially in fields such as **agriculture**, **pharmaceuticals**, **biochemistry**, and **environmental science**. Laboratory sessions (if applicable) focus on the safe handling, synthesis, and identification of organic compounds using classical and modern techniques.			

Module 5

Code	Course/Module Title	ECTS	Semester
WOU2	Academic English 1	2	1
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
0	3	35	15
Description			
This course introduces students to the **fundamentals of computer programming**, with a focus on developing skills using a program such as **Office**. It covers basic concepts including **data types**, **variables**, **input/output operations**, **control structures** (such as loops and conditionals), **functions**, **arrays**, and **simple data structures**. Students will learn to design, write, test, and debug computer programs. The course aims to build computational thinking skills and demonstrate how programming can be used to solve real-world problems, including applications in **agriculture**, **science**, **data analysis**, and **automation**.			

Module 6

Code	Course/Module Title	ECTS	Semester
AGR-112	principles of soil	7	1
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	0	102	73
Description			
This course introduces students to the core concepts, principles, and practices of **democracy and human rights** at the national and international levels. It explores the **development of democratic systems**, the **rule of law**, **citizenship**, **civil liberties**, **political participation**, and the **protection of individual and collective rights**. Students will study major human rights declarations and conventions, such as the **Universal Declaration of Human Rights**, and the roles of international organizations in promoting justice and equality. Through discussions, case studies, and interactive activities, the course aims to strengthen students' awareness of their **rights and responsibilities** as citizens and to encourage **active participation** in democratic processes.			

Module 7

Code	Course/Module Title	ECTS	Semester
PP-121	Entomology	7	2
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	3	102	73
Description			

This course introduces students to the **fundamentals of machines and engineering workshop practices**, with a focus on the operation, maintenance, and practical use of **agricultural and mechanical machinery**. It covers basic concepts of **mechanical systems**, **tools**, **machine components**, and **workshop safety procedures**. Students will gain hands-on experience in the **use of lathes, welding tools, cutting tools, drilling machines**, and other common workshop equipment.
The course emphasizes the role of machines in agricultural productivity and technical industries, teaching students how to operate, maintain, and troubleshoot simple machines and tools used in various fields.

Module 8

Code	Course/Module Title	ECTS	Semester
AGR-122	Principles of Field Crops	5	2
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	3	103	22
Description			
This course provides an introduction to the **science of microbiology**, focusing on the structure, classification, physiology, and functions of microorganisms, including **bacteria, viruses, fungi, protozoa**, and **algae**. It explores their roles in **health, agriculture, industry, and the environment**. Topics include microbial growth, nutrition, reproduction, metabolism, genetic variation, and methods of microbial control. Special attention is given to **beneficial and harmful microorganisms** in agriculture, food production, and animal health. The laboratory component involves techniques such as **microscopy, staining, culturing, isolation**, and **identification** of microbes.			

Module 9

Code	Course/Module Title	ECTS	Semester
PP-122	Non-insect animal pests	7	2
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	3	104	71
Description			
This course introduces students to the fundamentals of covering the principles and methods used in the processing, preservation, packaging, storage, and quality control of various. Topics include the industrial production of dairy products, meat, poultry, cereals, oils, fruits, and vegetables. Emphasis is placed on food safety standards, hygienic practices, processing equipment, and the role of technology in improving shelf life, nutritional value, and consumer appeal. Students will gain both theoretical knowledge and practical skills needed for understanding modern operations, enabling them to apply these principles in real-world agricultural and industrial settings.			

Module 10

Code	Course/Module Title	ECTS	Semester

AGR-121	Agricultural economics	3	2
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2		53	22
Description			
This course introduces the **basic principles of statistics** and their applications in scientific research, particularly in agriculture, biology, and related fields. It covers topics such as **data collection**, **organization**, **presentation**, **measures of central tendency and dispersion**, **probability distributions**, **hypothesis testing**, **correlation**, **regression**, and **analysis of variance (ANOVA)**. Students will learn to use statistical tools and software to analyze and interpret data, supporting scientific conclusions and decision-making. Emphasis is placed on **practical applications**, problem-solving, and understanding the role of statistics in research and industry.			

Module 11

Code	Course/Module Title	ECTS	Semester
AGR-112	principles of Horticulture	6	2
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	3	100	50
Description			
This course is designed to develop students' **academic English language skills**, with a focus on enhancing their **reading, writing, listening, and speaking** abilities in an academic context. Emphasis is placed on **vocabulary development**, **grammar accuracy**, **sentence and paragraph structure**, and **basic academic writing techniques**. Students will engage with a variety of texts and practice language skills through structured activities that build confidence in understanding and using English in university and professional settings. The course prepares students for future academic success by strengthening their ability to comprehend lectures, write assignments, participate in discussions, and read academic materials effectively.			

Module 12

Code	Course/Module Title	ECTS	Semester
WU01	Arabic Language	2	2
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	0	34	16
Description			
This course aims to strengthen students' skills in the **Arabic language**, focusing on improving their abilities in **reading, writing, grammar, and comprehension**. It provides a foundation in **classical and modern standard Arabic**, with attention to **sentence structure, correct usage, punctuation**, and **writing techniques**. The course also introduces students to selected texts from **Arabic literature,**			

culture, and heritage, enhancing their appreciation for the richness and depth of the Arabic language. Students will practice writing essays, analyzing texts, and applying grammatical rules accurately, enabling them to communicate effectively in academic and professional contexts.

Contact

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MODULE DESCRIPTION FORM

Module Information					
Module Title	Democracy and human rights			**Module Delivery**	
Module Type	S			☒ **Theory** ☒ **Lecture** ☐ **Lab** ☐ **Tutorial** ☒ **Practical** ☐ **Seminar**	
Module Code	WU04				
ECTS Credits	2				
SWL (hr/sem)	50				
Module Level	1		**Semester of Delivery**	1	
Administering Department	Plant protection		**College**	College of Agriculture	
Module Leader	Dr. Amir Kareem Hadhal		**e-mail**		
Module Leader's Acad. Title	Lecturer		**Module Leader's Qualification**	Ph.D.	
Module Tutor			**e-mail**		
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	10/03/2025		**Version Number**	1.0	

Relation with other Modules			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	1. **Introduce students to the concept of democracy**, its historical development, various forms, and mechanisms of implementation in modern political systems. 2. **Enhance students' awareness of human rights**, including their definition, types (civil, political, economic, social, cultural), and the international and local sources that protect these rights. 3. **Promote a culture of tolerance and active citizenship** among students, and encourage respect for others' opinions and political and cultural pluralism. 4. **Enable students to distinguish between democratic and non-democratic systems**, analyze their characteristics, and assess their impact on societies. 5. **Highlight the role of national and international institutions** in the protection and promotion of human rights. 6. **Introduce students to international human rights declarations and**

	conventions, such as the Universal Declaration of Human Rights and the two International Covenants. 7. **Encourage students to participate in public life** and practice their political and civil rights with awareness and responsibility. 8. **Develop students' critical thinking** regarding contemporary issues related to freedom, justice, equality, and the rights of vulnerable and marginalized groups.
Module Learning Outcomes	1. **Explain the basic concepts of democracy and human rights**, and distinguish them from similar or overlapping concepts. 2. **Analyze the development of democratic thought throughout history**, and identify its forms and contemporary applications. 3. **Identify the types of human rights** (civil, political, economic, social, cultural) and their international and local legal sources. 4. **Evaluate the role of national and international organizations** in the protection and promotion of human rights, such as the United Nations, international courts, and civil society organizations. 5. **Compare democratic and non-democratic systems** in terms of structure, function, and their impact on public freedoms. 6. **Apply democratic principles in university and community life**, through respect for others' opinions, teamwork, and active participation. 7. **Recognize human rights violations** in various contexts and be able to propose humanitarian and legal solutions or alternatives. 8. **Demonstrate ethical and humanitarian commitment** to issues related to equality, justice, and the rights of vulnerable and marginalized groups in society.
Indicative Contents	1. **Introduction to Democracy and Human Rights** o Basic concepts o Importance and objectives 2. **Origin and Development of Democracy** o Historical roots o Contemporary models of democracy 3. **Forms of Democracy** o Direct democracy o Representative democracy 4. **Human Rights: Concept and Characteristics** o Classifications (civil, political, economic...) o Fundamental principles (dignity, equality, freedom) 5. **International Human Rights Instruments** o The Universal Declaration of Human Rights o The International Covenant on Civil and Political Rights o The International Covenant on Economic, Social and Cultural Rights 6. **Mechanisms for the Protection of Human Rights** o Nationally (constitution, judiciary) o Internationally (United Nations, international organizations) 7. **Democracy and Human Rights in the Arab Context** o Challenges and opportunities

	○ Positive and negative examples 8. **The Role of Citizens in a Democratic System** ○ Political participation ○ Social responsibility 9. **Contemporary Human Rights Issues** ○ Women's rights ○ Children's rights ○ Freedom of expression 10. **Conclusion and General Evaluation** ○ Comprehensive review ○ Open discussions and practical applications

Learning and Teaching Strategies	
Strategies	• **Interactive lectures**: To present basic concepts and theories in a simplified and clear manner. • **Brainstorming and classroom discussions**: To stimulate critical thinking and promote the exchange of ideas. • **Case studies**: To analyze real-life situations related to human rights and democracy. • **Group work**: To develop a spirit of cooperation and dialogue among students. • **Student presentations**: To enhance communication and research skills. • **Field visits or meetings with human rights organizations (if possible)**: To connect theory with practical application. • **Use of multimedia**: Such as videos and documents to showcase examples of the struggle for democracy and human rights. • **Short reports and research papers**: To encourage self-learning and deepen understanding.

Student Workload (SWL)			
Structured SWL (h/sem)	33	**Structured SWL (h/w)**	3
Unstructured SWL (h/sem)	17	**Unstructured SWL (h/w)**	1
Total SWL (h/sem)	**50**		

Module Evaluation					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative	**Tests**	1	10% (10)	7	LO #1 - #6

assessment	**Projects**	1	10% (10)	15	LO #1 -#15
	Lab	1	10% (10)	8	LO #1 - #7
	Reports	1	10% (10)	15	LO #1 - #14
Summative assessment	**Mid Exam**	2hr	10% (10)	7	LO #1 - #6
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

	Material Covered
Week 1	Definition of Human Rights
Week 2	Origin and Development of the Concept of Human Rights
Week 3	Overview of Human Rights in Ancient Civilizations (Mesopotamia, Nile Valley)
Week 4	Human Rights in Divine Religions
Week 5	Human Rights and Their Relation to Other Variables
Week 6	Relationship Between Rights and Law
Week 7	Relationship Between Rights and Duties
Week 8	Key Fundamental Human Rights
Week 9	Impact of Globalization on Human Rights
Week 10	Major International Declarations and Conventions on Human Rights
Week 11	Universal Declaration of Human Rights (1948)
Week 12	Cairo Declaration on Human Rights in Islam
Week 13	Human Rights in International Charters and Laws
Week 14	International Covenant on Civil and Political Rights
Week 15	Financial and Administrative Corruption

Learning and Teaching Resources

	Text	**Available in the Library?**
Required Texts	Theory and practical lectures	Yes
Recommended Texts	Human rights Book	Yes

Websites	

Grading Scheme				
Group	**Grade**		**Marks %**	**Definition**
Success Group (50 - 100)	**A -** Excellent		90 - 100	Outstanding Performance
	B - Very Good		80 - 89	Above average with some errors
	C - Good		70 - 79	Sound work with notable errors
	D - Satisfactory		60 - 69	Fair but with major shortcomings
	E - Sufficient		50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX –** Fail		(45-49)	More work required but credit awarded
	F – Fail		(0-44)	Considerable amount of work required

Note: Marks 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.

Module 7

Code	Course/Module Title	ECTS	Semester
AGR123	Machines and Workshops	7	2
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	3	78	97

Description

This course introduces students to the **fundamentals of machines and engineering workshop practices**, with a focus on the operation, maintenance, and practical use of **agricultural and mechanical machinery**. It covers basic concepts of **mechanical systems**, **tools**, **machine components**, and **workshop safety procedures**. Students will gain hands-on experience in the **use of lathes, welding tools, cutting tools, drilling machines**, and other common workshop equipment.
The course emphasizes the role of machines in agricultural productivity and technical industries, teaching students how to operate, maintain, and troubleshoot simple machines and tools used in various fields.

MODULE DESCRIPTION FORM

Module Information					
Module Title	English Language			**Module Delivery**	
Module Type	Basic			☒ **Theory** ☒ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	WU02				
ECTS Credits	2				
SWL (hr/sem)	50				
Module Level	1		**Semester of Delivery**	2	
Administering Department	Plant protection		**College**	College of Agriculture	
Module Leader	Suhad Kareem Rahi Al-Magsoosi		**e-mail**	skareem@uowasit.edu.iq	
Module Leader's Acad. Title	Lecturer		**Module Leader's Qualification**	PhD	
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date	2025/03/01		**Version Number**	1.0	

Relation with other Modules			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	to enable the learner to communicate effectively and appropriately in real life situation: b. to use English effectively for study purpose across the curriculum; c. to develop interest in and appreciation of Literature; d. to develop and integrate the use of the four language skills i.e. Reading, Listening, Speaking and Writing; e. to revise and reinforce structure already learnt.
Module Learning Outcomes	to develop the students' abilities in grammar, oral skills, reading, and study skills 1. Students will increase their awareness of correct usage of English grammar in writing and speaking. 2. Improve their speaking ability in English both in terms of fluency and

	comprehensibility. 3. Receive feedback on their performance through oral presentations. 4. Increase their reading speed and comprehension of academic articles. 5. improve their reading fluency skills through extensive reading. 6. Expand their vocabulary by keeping a vocabulary journal. 7. strengthen their ability to write academic papers, essays and summaries using the process approach.
Indicative Contents	The course aims to develop communicative competence in English for intercultural contexts by teaching language items and communicative strategies essential for such scenarios, while at the same time giving students ample chances to output such items. The aims of this course are reflected in the content, which contains several themes, such as cultural awareness, intercultural awareness and English as a global language. Indicative content includes understanding the uniqueness of your own culture and other cultures, as well as being aware of the role culture plays in communication in English as a global language. In addition, this course allows for discussions about what it means for English to be a global language of communication and how misunderstandings and miscommunications when using English occurs. The course also includes practice in the pronunciation features that help improve intelligibility in intercultural contexts, namely the Lingua Franca Core.

Learning and Teaching Strategies	
Strategies	1. Cultivate relationships Speaking with students to know each student, helps you understand who they are, where they come from and, perhaps, gain some insight into what teaching and learning styles are most effective for them. 2. Teach language skills across all curriculum topics 3. Speak slowly and be patient: Speaking in a slower, measured cadence Being a bit more aware of your pronunciation 4. Prioritize “productive language” 5. Using a variety of methods to engage learning 6. Using visual aids by the use of pictures, diagrams, charts and other visual tools. 7. Coordinate with the ESL teacher: Such discussions can yield insights into individual students and their learning styles or challenges; they can also be helpful for sharing information about curriculum topics, potentially providing ESL teachers with ideas for highly relevant vocabulary words that can reinforce academic lessons. 8. Pre-teach new vocabulary words that may be unfamiliar to ELLs, or even to give them a copy of the article or link to the material ahead of time. 9. Build in some group work. 10. Respect moments of silence: Many new language learners tend to be a little reticent and quiet, opting for silence over speaking up and saying something “wrong” in a language that is still unfamiliar. Research-based strategies for differentiating instruction to promote student learning

Student Workload (SWL)			
Structured SWL (h/sem)	33	**Structured SWL (h/w)**	2
Unstructured SWL (h/sem)	17	**Unstructured SWL (h/w)**	1
Total SWL (h/sem)	50		

Module Evaluation					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	2	10% (10)	3,6,9	LO #1, #7
	Assignments	2	10% (10)	10	LO #3, #4 and #6
	Projects / Lab.	0	0 %		
	Essays	1	10% (10)	14	LO #5
Summative assessment	**Midterm Exam**	2hr	20% (10)	7	LO #1 - #7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Unit-1 (Hello)
Week 2	Unit-2 (Your world)
Week 3	Unit-3 (Personal information)
Week 4	Unit-4 (Family and friends)
Week 5	Unit-5 (It's my life)
Week 6	Unit-6 (Every day)
Week 7	**Mid-term Exam**
Week 8	Unit-7 (Places I like)
Week 9	Unit-8 (Where I live)
Week 10	Unit-9 (Happy birthday)
Week 11	Unit-10 (We had a good time)
Week 12	Unit-11 (we can do it)
Week 13	Unit-12 (Thank you very much)

Week 14	Unit-13 (Here and now)
Week 15	Unit-14 (It's time to go)

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts	Headway. Beginner. Student's Book by Liz and John Soars, 2019.	Yes
Recommended Texts		No
Websites	https://elt.oup.com/student/headway/beg/?cc=global&selLanguage=en	

Grading Scheme				
Group	**Grade**		**Marks %**	**Definition**
Success Group (50 - 100)	**A -** Excellent		90 - 100	Outstanding Performance
	B - Very Good		80 - 89	Above average with some errors
	C - Good		70 - 79	Sound work with notable errors
	D - Satisfactory		60 - 69	Fair but with major shortcomings
	E - Sufficient		50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX –** Fail		(45-49)	More work required but credit awarded
	F – Fail		(0-44)	Considerable amount of work required

Note: Marks 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.

Module 12

Code	**Course/Module Title**	**ECTS**	**Semester**
WU01	Arabic Language	2	2
Class (hr/w)	**Lect/Lab./Prac./Tutor**	**SSWL (hr/sem)**	**USWL (hr/w)**
2	0	33	17
Description			
This course aims to strengthen students' skills in the **Arabic language**, focusing on improving their			

abilities in **reading, writing, grammar, and comprehension**. It provides a foundation in **classical and modern standard Arabic**, with attention to **sentence structure, correct usage, punctuation**, and **writing techniques**. The course also introduces students to selected texts from **Arabic literature, culture, and heritage**, enhancing their appreciation for the richness and depth of the Arabic language. Students will practice writing essays, analyzing texts, and applying grammatical rules accurately, enabling them to communicate effectively in academic and professional contexts.

MODULE DESCRIPTION FORM

Module Information					
Module Title	Arabic Language			**Module Delivery**	
Module Type	S			☐**Theory** ☒ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	WU01				
ECTS Credits	2				
SWL (hr/sem)	50				
Module Level		1	**Semester of Delivery**		2
Administering Department		Plant protection	**College**	College of Agriculture	
Module Leader	Zena Abdulla Khamees		**e-mail**		
Module Leader's Acad. Title		Assist. Lecturer	**Module Leader's Qualification**		Master degree
Module Tutor			**e-mail**		
Peer Reviewer Name		Name	**e-mail**	E-mail	
Scientific Committee Approval Date		10/03/2025	**Version Number**		1.0

Relation with other Modules			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents	
Module Objectives	1. To develop the basic language skills of the student: listening, speaking, reading, and writing. 2. To enhance the ability to express orally and in writing using correct and proper Arabic. 3. To expand the student's vocabulary through the study of new words and structures. 4. To improve reading comprehension and literary analysis skills across various text types (narrative, poetic, and expository). 5. To familiarize students with essential grammar and spelling rules and apply them accurately. 6. To foster a sense of belonging and appreciation for the Arabic language as a language of religion, culture, and identity. 7. To train students in critical and analytical thinking skills through text discussions and interpretation. 8. To expose students to examples of classical and modern Arabic literature to appreciate the beauty and history of the language.
Module Learning Outcomes	1. The student will distinguish between different types of literary and linguistic texts. 2. The student will correctly apply grammar and spelling rules in writing and speaking. 3. The student will analyze written texts from both linguistic and literary perspectives. 4. The student will compose coherent and grammatically correct paragraphs or essays in Arabic. 5. The student will read texts aloud with proper pronunciation and expression. 6. The student will express opinions and ideas orally using clear and correct language. 7. The student will relate what they learn in Arabic to their daily life or academic specialization. 8. The student will demonstrate appreciation for the role of the Arabic language in shaping cultural and religious identity.
Indicative Contents	1. Introduction to the importance and status of the Arabic language. 2. Types of texts: narrative, descriptive, expository, persuasive, poetic. 3. Reading skills and reading comprehension. 4. Writing skills: paragraph writing, essay writing, letter writing. 5. Grammar and morphology: nominal and verbal sentences, subjects and objects, diptotes. 6. Spelling rules and punctuation marks. 7. Oral expression and public speaking skills. 8. Literary analysis of poetry and prose texts. 9. Introduction to key figures in classical and modern Arabic literature. 10. Practical activities: discussions – oral presentations – written exercises.

Learning and Teaching Strategies	
Strategies	1. Interactive lectures to explain linguistic and literary concepts. 2. Group work through class discussions and collaborative activities. 3. Written exercises to develop writing and grammar skills. 4. Oral presentations to enhance speaking abilities and self-confidence. 5. Analytical reading of various texts to understand deeper meanings. 6. Project-based learning to apply knowledge in real-world contexts. 7. Brainstorming for idea generation and creative expression. 8. Self-assessment and feedback for performance improvement and continuous learning. 9. Field visits or meetings with writers to connect content with real life (if applicable). 10. Use of multimedia tools such as educational videos and presentations to enrich the content.

Student Workload (SWL)			
Structured SWL (h/sem)	30	**Structured SWL (h/w)**	2
Unstructured SWL (h/sem)	17	**Unstructured SWL (h/w)**	1
Total SWL (h/sem)	**50**		

Module Evaluation					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	1	10% (10)	15	LO #1 - #14
	Onset assignments	1	10% (10)	14	LO #8 - #13
	Online assignments	1	10% (10)	6	LO #1 - #5
	Reports	1	10% (10)	5	LO #1 - #4
Summative assessment	**Midterm Exam**	2hr	10% (10)	8	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

	Material Covered
Week 1	Getting acquainted with the history of the Arabic language, and its sections: first: grammar: explaining the payments from the Beginner, the news, the name of Kan and her sisters, and the participation of students in applying it
Week 2	Complete the explanation of the payments from the news of Kan, her sisters and the actor The actor's deputy will activate the practical application
Week 3	Explanation of the postulates of the effect and absolute effect
Week 4	Complete the explanation of the positions of effect and effect for him and for him
Week 5	The use of competition and the spirit of the group in explaining the subject of the case and raising some questions about the subject of the exception
Week 6	Using the question-and-answer method by presenting the topic of discrimination and continuing to present the subject of the caller
Week 7	Getting into the topic of prepositions: explaining the importance of prepositions from the genitive by preposition and genitive by annexation
Week 8	Explanation of the topic of minions, from participle, emphasis and substitution
Week 9	Complete the explanation of the Minions of the kindness of the pattern
Week 10	Entering a new topic, namely the number, and knowing its provisions
Week 11	Second: to identify the exchange science and the exchange balance by applying it in practice
Week 12	Explain the subject of the correct verb and the difference between it and the verb The sufferer
Week 13	Touch on the subject of abstract verbs and more, explain the subject of verb attribution
Week 14	Third: spelling: explain the topic of punctuation marks and find out their importance in writing research and University theses
Week 15	Recognize the importance of drawing the Hamza, writing the TA and applying

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts	Arabic language book, Dr. Rafid Sabah Altimimy	Yes
Recommended Texts	Journals and reports, online references, internet.	No

Grading Scheme

Group	Grade		Marks %	Definition
Success Group	**A -** Excellent		90 - 100	Outstanding Performance

(50 - 100)	**B -** Very Good		80 - 89	Above average with some errors
	C - Good		70 - 79	Sound work with notable errors
	D - Satisfactory		60 - 69	Fair but with major shortcomings
	E - Sufficient		50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX –** Fail		(45-49)	More work required but credit awarded
	F – Fail		(0-44)	Considerable amount of work required

Note: Marks 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.

MODULE DESCRIPTION FORM

Module Information					
Module Title	**Computer-1**			**Module Delivery**	
Module Type				☒ **Theory** ☒ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**WOU4**				
ECTS Credits	**3**				
SWL (hr/sem)	**75**				
Module Level		1	**Semester of Delivery**		1
Administering Department		Type Dept. Code	**College**	Type College Code	
Module Leader	Zahraa Lafta		**e-mail**		
Module Leader's Acad. Title		ASSIST. PROF.	**Module Leader's Qualification**		MSC
Module Tutor			**e-mail**		
Peer Reviewer Name		HASAN HADI FARAJ	**e-mail**		
Scientific Committee Approval Date		2024-12-12	**Version Number**		1.0

Relation with other Modules			
Prerequisite module	None	**Semester**	

Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents	
Identify computer components and their functions, and identify the computer technologies, programs, and applications required to operate and complete the task.	**Module Objectives**
Give theoretical lectures to convey information to students using the following methods: (whiteboard, data projector, interactive lecture, educational video presentation).	**Module Learning Outcomes**
Conduct practical lectures through observation and interaction with field or laboratory aspects.	**Indicative Contents**

Learning and Teaching Strategies	
Providing theoretical lectures to deliver information to students through the following methods: (blackboard, data projector, interactive lecture, educational video presentation). Conducting practical lectures through observation and interaction with field or laboratory aspects.	**Strategies**

Student Workload (SWL)			
Structured SWL (h/sem)	45	**Structured SWL (h/w)**	15
Unstructured SWL (h/sem)	5	**Unstructured SWL (h/w)**	10
Total SWL (h/sem)	**75**		

Module Evaluation					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	Tests	1	10% (10)	Continuous	1,2,3,4,5,6
	College	15	10% (10)	Continuous	1,2,3,4,5,6

	assignments				
	Homework	1	15% (15)	Continuous	1,2,3,4,5,6،7,8,9,10,11, 12,13,14,
	Reports	1	5% (5)	Continuous	1,2,3,4,5,6
Summative assessment	Midterm exam	2hr	10% (10)	14	1,2,3,4,5,6
	Final exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Lab. Syllabus)

Material Covered	
What is a Computer? / Computer Features / Computer Components / Computer Types	**Week 1**
Main Parts of a Personal Computer	**Week 2**
Operating Systems and Their Types	**Week 3**
Network Configuration	**Week 4**
Communication Networks and Global Connectivity	**Week 5**
The Internet	**Week 6**
Daily Life and Computers	**Week 7**
Insurance, Copyright, and Law	**Week 8**
Dealing with Menus and Icons	**Week 9**
Desktop Quick Menu	**Week 10**
Windows Explorer	**Week 11**
Using Additional Programs with Windows	**Week 12**
How to Improve the Appearance of Screen Fonts When Using Flat Panel LCD Monitors or Laptops	**Week 13**
What is the Firewall in Windows XP and How Do I Activate It?	**Week 13**
Dynamic Disk	**Week 14**

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts	Computer Science Principles Book, Software User Guide	Yes
Recommended Texts	Scientific Articles	No
Websites	No	

Grading Scheme				
Group	**Grade**		**Marks %**	**Definition**
Success Group (50 - 100)	**A** - Excellent		90 - 100	Outstanding Performance
	B - Very Good		80 - 89	Above average with some errors
	C - Good		70 - 79	Sound work with notable errors
	D - Satisfactory		60 - 69	Fair but with major shortcomings
	E - Sufficient		50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail		(45-49)	More work required but credit awarded
	F – Fail		(0-44)	Considerable amount of work required

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MODULE DESCRIPTION FORM

Module Information			
Module Title	**Principles of Field Crops**	**Module Delivery**	
Module Type	**B**	☐ **Theory** ☒ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	AGR122		
ECTS Credits	5		
SWL (hr/sem)	**125**		
Module Level	1	**Semester of Delivery**	2
Administering Department	Plant protection	**College**	AGRI
Module Leader	Ali Hashim	**e-mail**	
Module Leader's Acad. Title	Lecturer	**Module Leader's Qualification**	PhD
Module Tutor	Name	**e-mail**	E-mail

Peer Reviewer Name		**e-mail**	E-mail
Scientific Committee Approval Date	10/03/2025	**Version Number**	1.0

Relation with other Modules

Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents

1. The most important elements of agricultural production, as they provide essential needs for the continuity of life.	**Module Objectives**
1. Identify the most important field crops. 2. Study the types of crops and the environments suitable for their growth. 3. Gain knowledge of the types of field crops and how to propagate them.	**Module Learning Outcomes**
	Indicative Contents

Learning and Teaching Strategies

1. Interactive lectures to explain linguistic and literary concepts. 2. Group work through class discussions and collaborative activities. Using multimedia, such as educational videos and presentations, to explain the content.	

Student Workload (SWL)

Structured SWL (h/sem)	30	**Structured SWL (h/w)**	2
Unstructured SWL (h/sem)	17	**Unstructured SWL (h/w)**	1
Total SWL (h/sem)	**50**		

Module Evaluation

	Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**

Formative assessment	Tests	1	10% (10)	15	LO #1 - #14
	College assignments	1	10% (10)	14	LO # 8- #13
	Homework	1	10% (10)	6	LO #1 - #5
	Reports	1	10% (10)	5	LO #1 - #4
Summative assessment	Midterm exam	2hr	10% (10)	8	LO #1 - #7
	Final exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

subject	week
The student will learn about field crops.	1
The student will learn about the classification of field crops according to their economic use.	2
The student will learn about the botanical description of field crops, such as grasses and legumes.	3
The student will learn about environmental factors and their relationship to field crop growth.	4
The student will learn about weather factors, light, temperature, and humidity.	5
The student will learn about crop types based on their tolerance to salinity.	6
The student will learn about the relationship between water and field crop growth.	7
The student will learn about biotic factors involving microorganisms.	8
The student will learn about land preparation processes for planting.	9
The student will learn about the conditions required for field crop seeds.	10
The student will learn about weeds, their spread factors, and the losses they cause.	11
The student will learn about the types of agricultural rotations.	12
The student will learn about field crop breeding methods.	13

The student will learn about the stages of improved seed production and propagation.	14
The student will learn about the most important annual crops in Iraq.	15

Delivery Plan (Weekly Lab. Syllabus)	
subject	**week**
The student will learn about field crops.	1
The student will learn about the classification of field crops according to their economic use.	2
The student will learn about the botanical description of field crops, such as grasses and legumes.	3
The student will learn about environmental factors and their relationship to field crop growth.	4
The student will learn about weather factors, light, temperature, and humidity.	5
The student will learn about crop types based on their tolerance to salinity.	6
The student will learn about the relationship between water and field crop growth.	7
The student will learn about biotic factors involving microorganisms.	8
The student will learn about land preparation processes for planting.	9
The student will learn about the conditions required for field crop seeds.	10
The student will learn about weeds, their spread factors, and the losses they cause.	11
The student will learn about the types of agricultural rotations.	12
The student will learn about field crop breeding methods.	13
The student will learn about the stages of improved seed production and propagation.	14
The student will learn about the most important annual crops in Iraq.	15

Learning and Teaching Resources		
	Text	**Available in the Library?**

Required Texts	Field Crops Book	Yes
Recommended Texts	(scientific journals, reports), electronic references, websites.	No

Grading Scheme				
Group	**Grade**		**Marks %**	**Definition**
Success Group (50 - 100)	**A -** Excellent		90 - 100	Outstanding Performance
	B - Very Good		80 - 89	Above average with some errors
	C - Good		70 - 79	Sound work with notable errors
	D - Satisfactory		60 - 69	Fair but with major shortcomings
	E - Sufficient		50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX –** Fail		(45-49)	More work required but credit awarded
	F – Fail		(0-44)	Considerable amount of work required

Note: Marks 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.

MODULE DESCRIPTION FORM

Module Information					
Module Title	**Principles of Soil Science**			**Module Delivery**	
Module Type	**B**			☐ **Theory** ☒ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	AGR112				
ECTS Credits	7				
SWL (hr/sem)	**175**				
Module Level		1	**Semester of Delivery**		2
Administering Department		Plant protection	**College**	Agric.	
Module Leader	Mahdi Wissmee		**e-mail**		

Module Leader's Acad. Title	Assist. Prof.	**Module Leader's Qualification**	PhD
Module Tutor	Name	**e-mail**	E-mail
Peer Reviewer Name	Name	**e-mail**	E-mail
Scientific Committee Approval Date	10/03/2025	**Version Number**	1.0

Relation with other Modules

Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents

1. Soil science studies the origin and development of soil. 2 .Includes the physical and chemical properties of soil. 2. Soil classification and management in Iraq.	**Module Objectives**
1. Identify the most important soils and their distribution. 2. Study soil types and measure their suitability for agricultural crops. 3 .Gain knowledge of soil types in central and southern Iraq.	**Module Learning Outcomes**
	Indicative Contents

Learning and Teaching Strategies

1. Interactive lectures to explain linguistic and literary concepts. 2. Group work through class discussions and collaborative activities. 3. Use of multimedia, such as educational videos and presentations, to explain content.	

Student Workload (SWL)

Structured SWL (h/sem)	30	**Structured SWL (h/w)**	2
Unstructured SWL (h/sem)	17	**Unstructured SWL (h/w)**	1
Total SWL (h/sem)	**50**		

Module Evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Tests	1	10% (10)	15	LO #1 - #14
	College assignments	1	10% (10)	14	LO # 8- #13
	Homework	1	10% (10)	6	LO #1 - #5
	Reports	1	10% (10)	5	LO #1 - #4
Summative assessment	Midterm exam	2hr	10% (10)	8	LO #1 - #7
	Final exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

Subject	Week
The student will be introduced to the definition and general concepts of soil, soil science, and the origin and development of soils.	1
The student will be introduced to the physical properties of soil.	2
The student will be introduced to soil water.	3
The student will be introduced to colloids and the chemical properties of soils.	4
The student will be introduced to soil salinity and alkalinity, the reclamation of salt-affected lands, and the management of reclaimed soils.	5
The student will be introduced to the biological and biochemical properties of soils.	6
The student will be introduced to soil fertility and plant nutrition.	7
The student will be introduced to the classification and management of soils in Iraq.	8
The student will be introduced to soil colloids.	9
The student will be introduced to soil formation processes.	10

The student will be introduced to soil salinity and alkalinity.	11
The student will be introduced to the nature of ion exchange.	12
The student will be introduced to the determination of soil salinity.	13
The student will be introduced to the classification of soil water.	14
The student will be introduced to the nature of ion exchange.	15

Delivery Plan (Weekly Lab. Syllabus)

Subject	Week
Soil Definition and Sampling Methods	1
Interpreting Soil Moisture Content	2
Estimating Total Soil Soil Soil Soil Soil pH	3
Estimating Percentage of Soil Separates (Determining Soil Texture)	4
First Month	5
Estimating Bulk Density	6
Soil Definition and Sampling Methods	7
True density and porosity of soil	8
The student will learn about soil colloids	9
Estimating calcium carbonate in soil	10
Estimating soluble calcium and magnesium in soil	11
Estimating carbonates and bicarbonates	12
The student will learn about determining soil salinity	13
Estimating organic matter in soil	14
Estimating chlorides	15

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts	Principles of Soil Science, Ministry of Higher Education and Scientific Research	Yes
Recommended Texts	(scientific journals, reports), electronic references, websites.	No

Grading Scheme				
Group	**Grade**		**Marks %**	**Definition**
Success Group (50 - 100)	**A -** Excellent		90 - 100	Outstanding Performance
	B - Very Good		80 - 89	Above average with some errors
	C - Good		70 - 79	Sound work with notable errors
	D - Satisfactory		60 - 69	Fair but with major shortcomings
	E - Sufficient		50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX –** Fail		(45-49)	More work required but credit awarded
	F – Fail		(0-44)	Considerable amount of work required

Note: Marks 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.

MODULE DESCRIPTION FORM

Module Information		
Module Title	**General chemistry**	**Module Delivery**
Module Type	**B**	☐ **Theory** ☒ **Lecture** ☐ **Lab** ☐ **Tutorial**
Module Code	AGR111	
ECTS Credits	8	

SWL (hr/sem)	**200**			☐ **Practical** ☐ **Seminar**	
Module Level		1	**Semester of Delivery**		2
Administering Department		Plant protection	**College**	Agri.	
Module Leader	Wissam thamer		**e-mail**		
Module Leader's Acad. Title		Assist. Prof.	**Module Leader's Qualification**		Phd
Module Tutor	Name		**e-mail**	E-mail	
Peer Reviewer Name		Name	**e-mail**	E-mail	
Scientific Committee Approval Date		10/03/2025	**Version Number**		1.0

Relation with other Modules

Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents

i. Introduce the student to the importance of water and its chemical and physical properties. ii. Distinguish between solutions and methods of preparing them. iii. Introduce the student to general chemistry laboratories.	**Module Objectives**
1. Enabling students to recognize elements and their groups 2. Methods for separating elements from their groups	**Module Learning Outcomes**
	Indicative Contents

Learning and Teaching Strategies

a. Interactive lectures to explain linguistic and literary concepts. b. Group work through class discussions and collaborative activities. Using multimedia, such as educational videos and presentations, to explain content.	

Student Workload (SWL)

Structured SWL (h/sem)	30	**Structured SWL (h/w)**	2
Unstructured SWL (h/sem)	17	**Unstructured SWL (h/w)**	1
Total SWL (h/sem)	**50**		

Module Evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Tests	1	10% (10)	15	LO #1 - #14
	College assignments	1	10% (10)	14	LO # 8- #13
	Homework	1	10% (10)	6	LO #1 - #5
	Reports	1	10% (10)	5	LO #1 - #4
Summative assessment	Midterm exam	2hr	10% (10)	8	LO #1 - #7
	Final exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

Subject	Week
The student will learn about covalent bond fission in chemistry.	1
The student will learn about alkenes and rotary motion.	2
The student will learn about alkenes and double bond formation.	3
The student will learn about hydrocarbon compounds.	4
The student will learn about alkenes.	5

The student will learn about the formation of hydrocarbon compounds.	6
The student will learn about aliphatic cyclic compounds.	7
The student will learn about aromatic ring formation.	8
The student will learn about aliphatic and aromatic halides.	9
The student will learn about nucleophilic substitution in halides.	10
The student will learn about alcohols and phenols.	11
The student will learn about aldehydes and ketones.	12
The student will learn about nitrogen derivatives of aldehydes and ketones.	13
The student will learn about amines.	14
The student will learn about carboxylic acids.	15

Delivery Plan (Weekly Lab. Syllabus)

Subject	Week
Methods for separating the first set	1
Methods for separating the first set	2
Practical application of the unknown of the first set	3
Separating the second set	4
Practical application of the unknown of the second set	5
Practical application of the unknown of the second set	6
Practical application of the unknown of the second set	7
Practical application of the unknown of the second set	8
Separating the elements of the third set	9
Separating the elements of the unknown of the third set	10

Practical application of the unknown of the year	11
Chapter 4: Elements of Group 4	12
Chapter 5: Elements of Group 5	13
Chapter 6: Elements of Group 6	14
Chapter 4: Elements of Group 4	15

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts	Principles of General Chemistry, Ministry of Higher Education and Scientific Research	Yes
Recommended Texts	(scientific journals, reports), electronic references, websites.	No

Grading Scheme				
Group	**Grade**		**Marks %**	**Definition**
Success Group (50 - 100)	**A -** Excellent		90 - 100	Outstanding Performance
	B - Very Good		80 - 89	Above average with some errors
	C - Good		70 - 79	Sound work with notable errors
	D - Satisfactory		60 - 69	Fair but with major shortcomings
	E - Sufficient		50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX –** Fail		(45-49)	More work required but credit awarded
	F – Fail		(0-44)	Considerable amount of work required

Note: Marks 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.

MODULE DESCRIPTION FORM

Module Information					
Module Title	**Principles of Horticulture**			**Module Delivery**	
Module Type	**B**			☐**Theory** ☒ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	AGR112				
ECTS Credits	3				
SWL (hr/sem)	**75**				
Module Level	1		**Semester of Delivery**	2	
Administering Department	Plant protection		**College**	Agri.	
Module Leader	Ahmed Shaker Mohsen		**e-mail**		
Module Leader's Acad. Title	Assist. Prof.		**Module Leader's Qualification**	PhD	
Module Tutor	Name		**e-mail**	E-mail	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	10/03/2025		**Version Number**	1.0	

Relation with other Modules			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents	
i. Horticulture, history of the development of histology, economic and nutritional importance ii. Classification of horticultural plants	**Module Objectives**
The student will learn about horticulture and the development of histology.	**Module Learning Outcomes**
	Indicative Contents

Learning and Teaching Strategies

a. Interactive lectures to explain linguistic and literary concepts. b. Group work through class discussions and collaborative activities. Using multimedia, such as educational videos and presentations, to explain content.	

Student Workload (SWL)

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	30	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**50**		

Module Evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Tests	1	10% (10)	15	LO #1 - #14
	College assignments	1	10% (10)	14	LO # 8- #13
	Homework	1	10% (10)	6	LO #1 - #5
	Reports	1	10% (10)	5	LO #1 - #4
Summative assessment	Midterm exam	2hr	10% (10)	8	LO #1 - #7
	Final exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

Subject	Week
The student will learn about horticulture and the history of the development of histology.	1
The student will learn about the classification of horticultural plants.	2
The student will learn about environmental factors and their impact on horticultural crop production.	3
The student will learn about methods of horticultural plant reproduction (sexual and vegetative reproduction).	4
The student will learn about nurseries, field cultivation patterns, and ornamental and medicinal plants.	5
The student will learn about agricultural processes.	6
The student will learn about cultivation under conditioned environments.	7
The student will learn about harvesting, picking, and marketing.	8
The student will learn about storage and preservation.	9
The student will learn about an overview of horticultural plant breeding and improvement.	10
The student will learn about examples of deciduous and perennial fruit trees.	11
The student will learn about examples of vegetable plants and strategic crops.	12
The student will learn about examples of ornamental plants and landscape architecture.	13
The student will learn about examples of medicinal and aromatic plants.	14
Introduction to horticultural fields and facilities (gardens, orchards, and fields).	15

Delivery Plan (Weekly Lab. Syllabus)	
Subject	**Week**
The student will be introduced to horticulture, the history of the development of histology	1
classification of horticultural plants,	2

methods of propagation of horticultural plants, nurseries, field cultivation patterns	3
ornamental and medicinal plants, and agricultural processes,	4
will be introduced to cultivation under conditioned environments. The student will be introduced to harvesting, picking, and marketing,	5
storage and preservation,	6
the breeding and improvement of horticultural plants,	7
including deciduous	8
medicinal and aromatic plants,	9
introduction to horticultural fields and facilities	10
Gardens, orchards, and fields.	11
environmental factors and their impact on horticultural crop production	12
perennial fruit trees, vegetable plants,	13
strategic crops, ornamental plants	14
landscape design,	15

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts		Yes
Recommended Texts	Scientific journals, reports, electronic references, websites.	No

Grading Scheme				
Group	**Grade**		**Marks %**	**Definition**
Success Group (50 - 100)	**A -** Excellent		90 - 100	Outstanding Performance
	B - Very Good		80 - 89	Above average with some errors
	C - Good		70 - 79	Sound work with notable errors

	D - Satisfactory		60 - 69	Fair but with major shortcomings
	E - Sufficient		50 - 59	Work meets minimum criteria
Fail Group	**FX –** Fail		(45-49)	More work required but credit awarded
(0 – 49)	**F –** Fail		(0-44)	Considerable amount of work required

Note: Marks 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.

MODULE DESCRIPTION FORM

Module Information

Module Title	**Principles of Agricultural Economics**	**Module Delivery**	
Module Type	**B**	☐**Theory** ☒ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	AGR121		
ECTS Credits	3		
SWL (hr/sem)	**75**		

Module Level	1	**Semester of Delivery**	2
Administering Department	Plant protection	**College**	Agri.
Module Leader	Rabab Eman	**e-mail**	
Module Leader's Acad. Title	Assist. Lect.	**Module Leader's Qualification**	MSC
Module Tutor	Name	**e-mail**	E-mail
Peer Reviewer Name	Name	**e-mail**	E-mail
Scientific Committee Approval Date	10/03/2025	**Version Number**	1.0

Relation with other Modules

Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents	
i. Study the concept of economics, agricultural economics, branches of agricultural economics, and the relationship of agricultural economics to other sciences. ii. Study the economic and agricultural problem in terms of its causes and solutions. Study the economics of agricultural production.	**Module Objectives**
The student should become familiar with general concepts/aspects of economic life/the economic problem.	**Module Learning Outcomes**
	Indicative Contents

Learning and Teaching Strategies	
- Teamwork through class discussions and collaborative activities. Using multimedia, such as educational videos and presentations, to explain the content.	

Student Workload (SWL)			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	30	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**50**		

Module Evaluation				
	Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning**

					Outcome
Formative assessment	Tests	1	10% (10)	15	LO #1 - #14
	College assignments	1	10% (10)	14	LO # 8- #13
	Homework	1	10% (10)	6	LO #1 - #5
	Reports	1	10% (10)	5	LO #1 - #4
Summative assessment	Midterm exam	2hr	10% (10)	8	LO #1 - #7
	Final exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

Subject	Week
The student will be introduced to general concepts / aspects of economic life / economic problems	1
The student will be introduced to the theory of consumer behavior.	2
The student will be introduced to the modern theory of consumer equilibrium.	3
The student will be introduced to supply and demand (individual), the demand table and curve.	4
The student will be introduced to the elasticity of demand and the influencing factors.	5
The student will be introduced to supply, the supply table and curve.	6
The student will be introduced to the elasticity of supply and the influencing factors.	7
The student will be introduced to demand, supply, and price determination.	8
The student will be introduced to agricultural production and the elements of production.	9
The student will be introduced to the law of diminishing returns and its stages.	10
The student will be introduced to general economics and agricultural economics.	11

The student will be introduced to the role of agricultural activity in the national economy.	12
The student will be introduced to the branches of agricultural economics, including the economics of agricultural production.	13
The student will be introduced to agricultural prices, agricultural marketing, agricultural financing and lending.	14
The student will be introduced to agricultural business management, agricultural cooperation, agricultural policy, and development.	15

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts		Yes
Recommended Texts	Scientific journals, reports, electronic references, websites.	No

Grading Scheme

مخطط الدرجات

Group	Grade		Marks %	Definition
Success Group (50 - 100)	**A -** Excellent		90 - 100	Outstanding Performance
	B - Very Good		80 - 89	Above average with some errors
	C - Good		70 - 79	Sound work with notable errors
	D - Satisfactory		60 - 69	Fair but with major shortcomings
	E - Sufficient		50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX –** Fail		(45-49)	More work required but credit awarded
	F – Fail		(0-44)	Considerable amount of work required

Note: Marks 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.

MODULE DESCRIPTION FORM

Module Information					
Module Title	**Principles of plant protection**			**Module Delivery**	
Module Type	**C**			☐**Theory** ☒ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	PP112				
ECTS Credits	8				
SWL (hr/sem)	**200**				
Module Level		1	**Semester of Delivery**		2
Administering Department		Plant protection	**College**	Agri.	
Module Leader	Hasan Hadi Faraj		**e-mail**		
Module Leader's Acad. Title		Assist. Prof.	**Module Leader's Qualification**		PhD
Module Tutor	Name		**e-mail**	E-mail	
Peer Reviewer Name		Name	**e-mail**	E-mail	
Scientific Committee Approval Date		10/03/2025	**Version Number**	1.0	

Relation with other Modules			
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents	
1. Preparing students capable of working in the field of crop protection according to modern scientific curricula. 2. Entering the agricultural sector with outstanding competence through participation in projects.	**Module Objectives**
the agricultural sector with outstanding competence through participation in projects	**Module Learning Outcomes**
	Indicative Contents

Learning and Teaching Strategies	
- Teamwork through class discussions and collaborative activities. -Use of multimedia, such as educational videos and presentations, to explain content.	

Student Workload (SWL)			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	30	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**50**		

Module Evaluation

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Tests	1	10% (10)	15	LO #1 - #14
	College assignments	1	10% (10)	14	LO # 8- #13
	Homework	1	10% (10)	6	LO #1 - #5
	Reports	1	10% (10)	5	LO #1 - #4
Summative assessment	Midterm exam	2hr	10% (10)	8	LO #1 - #7
	Final exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

Subject	Week
Some definitions and terms in plant diseases	1
Living standards of organisms	2
Disease development stages	3
Diagnosis of the pathogen	4
Host response to infection	5
Effects of pathogens on their hosts	6
Organisms that cause plant diseases	7
Methods of plant resistance to pathogens	8
Viruses	9
Nematodes	10
Means of pathogen spread	11
Control of plant diseases	12
Agricultural pests	13
Economic importance of insects	14
Insect metamorphosis	15

Delivery Plan (Weekly Lab. Syllabus)	
Subject	**Week**
Introduction to Pests	1
Identify the most important insect pests	2
Observe some insect infestations	3
Observe examples of harmful insects	4
First Exam	5

The economic importance of plant diseases:	6
The most common plant diseases in Iraq:	7
Parasitic plants:	8
Some definitions and terms in plant diseases	9
Parasitism of living organisms	10
Stages of disease development	11
Disease diagnosis	12
Host response to infection	13
Effect of pathogen on their hosts	14
Second Month Exam	15

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts	General Entomology	Yes
Recommended Texts	Plant Pathology	No

Grading Scheme				
Group	**Grade**		**Marks %**	**Definition**
Success Group (50 - 100)	**A -** Excellent		90 - 100	Outstanding Performance
	B - Very Good		80 - 89	Above average with some errors
	C - Good		70 - 79	Sound work with notable errors
	D - Satisfactory		60 - 69	Fair but with major shortcomings
	E - Sufficient		50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX –** Fail		(45-49)	More work required but credit awarded
	F – Fail		(0-44)	Considerable amount of work required

Note: Marks 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.

MODULE DESCRIPTION FORM

Module Information

Module Title	**Entomology**		**Module Delivery**	
Module Type	**C**		☐**Theory** ☒ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	PP211			
ECTS Credits	7			
SWL (hr/sem)	**175**			
Module Level	1	**Semester of Delivery**	2	
Administering Department	Plant protection	**College**	Agri.	
Module Leader	Hasan Hadi Faraj	**e-mail**		
Module Leader's Acad. Title	Assist. Prof.	**Module Leader's Qualification**	PhD	
Module Tutor	Name	**e-mail**	E-mail	
Peer Reviewer Name	Name	**e-mail**	E-mail	
Scientific Committee Approval Date	10/03/2025	**Version Number**	1.0	

Relation with other Modules

Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents	
- Learn about insect stages and how they develop. - Learn about the most important harmful insects.	**Module Objectives**
	Module Learning Outcomes
	Indicative Contents

Learning and Teaching Strategies	
- Teamwork through class discussions and collaborative activities. - Using multimedia, such as educational videos and presentations, to explain content.	

Student Workload (SWL)			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	30	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**50**		

Module Evaluation					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	Tests	1	10% (10)	15	LO #1 - #14
	College	1	10% (10)	14	LO # 8- #13

	assignments				
	Homework	1	10% (10)	6	LO #1 - #5
	Reports	1	10% (10)	5	LO #1 - #4
Summative assessment	Midterm exam	2hr	10% (10)	8	LO #1 - #7
	Final exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
Subject	**Week**
Definition of Insects	1
Taxonomic Position of Insects	2
External Appearance	3
Stomach Wall Projections	4
First Month Exam	5
Body Regions	6
Mouth Parts	7
Thorax and Neck	8
Wings and Their Types	9
Second Month Exam	10
Wing Grip System	11
Abdomen and Its Appendages	12
Internal Anatomy	13
Respiratory System	14
Nervous System and Sense Organs	15

Delivery Plan (Weekly Lab. Syllabus)	
Subject	**Week**
Insect Collection Tools	1
Field Tour	2
Learn about the Phylum Arthropoda	3
External Appearance of Insects	4
Antennas	5
Mouthparts of Insects	6
First Month Exam	7
Mouthparts	8
Thorax and Wings	9
Abdomen and Appendages	10
Second Month Exam	11
Internal Anatomy	12
Respiratory System	13
Nervous System	14
Sense Organs	15

Learning and Teaching Resources		
	Text	**Available in the Library?**
Required Texts	General Entomology	Yes
Recommended Texts	General Entomology (journals, reports), electronic references, websites.	No

Grading Scheme مخطط الدرجات				
Group	**Grade**		**Marks %**	**Definition**
Success Group (50 - 100)	**A -** Excellent		90 - 100	Outstanding Performance
	B - Very Good		80 - 89	Above average with some errors
	C - Good		70 - 79	Sound work with notable errors
	D - Satisfactory		60 - 69	Fair but with major shortcomings
	E - Sufficient		50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX –** Fail		(45-49)	More work required but credit awarded
	F – Fail		(0-44)	Considerable amount of work required

Note: Marks 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.

MODULE DESCRIPTION FORM

Module Information					
Module Title	**Non-insect animal pests**			**Module Delivery**	
Module Type	**C**			☐**Theory** ☒ **Lecture** ☐ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	PP122				
ECTS Credits	7				
SWL (hr/sem)	**175**				
Module Level		1	**Semester of Delivery**		2
Administering Department		Plant Protection	**College**	Agri.	
Module Leader	Qais Murri		**e-mail**		
Module Leader's Acad. Title		Assist. Lect.	**Module Leader's Qualification**		PhD

Module Tutor	Name	**e-mail**	E-mail
Peer Reviewer Name	Name	**e-mail**	E-mail
Scientific Committee Approval Date	10/03/2025	**Version Number**	1.0

Relation with other Modules

Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents

-Methods of classifying non-insect animal pests -Ecology of non-insect animal pests	**Module Objectives**
-Methods of collecting and classifying non-insect animal pests in the soil - Traps and tools used in monitoring non-insect pests	**Module Learning Outcomes**
-Field lecture in the College of Agriculture fields to collect and classify non-insect pests and training on the use of some traps.	**Indicative Contents**

Learning and Teaching Strategies

- Teamwork through class discussions and collaborative activities. - Using multimedia, such as educational videos and presentations, to explain content.	

Student Workload (SWL)

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	30	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**50**		

Module Evaluation					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	Tests	1	10% (10)	15	LO #1 - #14
	College assignments	1	10% (10)	14	LO # 8- #13
	Homework	1	10% (10)	6	LO #1 - #5
	Reports	1	10% (10)	5	LO #1 - #4
Summative assessment	Midterm exam	2hr	10% (10)	8	LO #1 - #7
	Final exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
Subject	**Week**
Ecology of non-insect animal pests - Methods of classifying non-insect animal pests - Biological impact of soil animals	1
Plant-parasitic animals - Factors affecting pest reproduction and growth - Animals of the agricultur environment	2
Plant nematodes and their position in the animal kingdom and their classification - General characteristics of nematodes - Economic importance and harm - Structural and anatomical features of nematodes, body wall, digestive system	3
Excretory system in nematodes, nervous system, reproductive system, biological activities of nematodes	4
Phylum: Arthropoda and its most important distinguishing characteristics - Classes of arthropods a characteristics of each class	5
Agricultural economic mites (economic importance - damage they cause to plants - damage to humans and animals)	6

First month exam	7
Ticks and their hosts - External appearance of ticks - Body regions - Different body systems	8
Phylum: Mollusca (mollusks) - General characteristics of the class - Identification of snails - Economic importance Snails - The most important genera of the order Nawa	9
Rodents and their life history - General characteristics - Nature and habits - Economic importance of rodents	10
cators of rodent presence - Some important and common species in Iraq	11
Order: Chiroptera and its most important families - Flight adaptations - Nutrition - Mating behavior - Economic importance	12
Birds (General characteristics of birds - Nature of birds - General classification of birds - External characteristics - Foot shapes)	13
Second month exam	14
Comprehensive review	15

Delivery Plan (Weekly Lab. Syllabus)	
Subject	**Week**
(Methods of collecting and classifying non-insect animal pests in soil - Traps and tools used to monitor non-insect pests)	1
A field lecture in the College of Agriculture fields to collect and classify non-insect pests and training on the use of some traps.	2
Methods of monitoring and controlling pests in agricultural fields - The most important factors affecting the reproduction and growth of agricultural pests.	3
A field tour of the College of Agriculture fields to monitor for signs of infestation, including taking samples of infected plants and analyzing them in the field.	4
Excretory system - Nervous system - Reproductive system	5
First month exam	6

Tick classification and types - External appearance and body regions	7
General characteristics of the Phylum: Mollusca - The most important genera of the Mollusca - Snails	8
Types of rodents - Their general characteristics - Their various harmful effects - Methods of control	9
Factors indicating the presence of rodents - Important and common rodent species in Iraq	10
Bats and their most important hosts - Their flight method - Economic importance	11
Second month exam	12
General characteristics of birds - External characteristics - Foot shapes	13
The most important harmful hosts	14
General and comprehensive review	15

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts	General Entomology	Yes
Recommended Texts	General Entomology (journals, reports), electronic references, websites.	No

Grading Scheme

Group	Grade		Marks %	Definition
Success Group (50 - 100)	**A -** Excellent		90 - 100	Outstanding Performance
	B - Very Good		80 - 89	Above average with some errors
	C - Good		70 - 79	Sound work with notable errors
	D - Satisfactory		60 - 69	Fair but with major shortcomings
	E - Sufficient		50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX –** Fail		(45-49)	More work required but credit awarded
	F – Fail		(0-44)	Considerable amount of work required

Note: Marks 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.