

## Course Description Form

1. Course Name:	
Integrated pest management	
2. Course Code:	
INPM427	
3. Semester / Year:	
Secend semester/FOURTH stage/2024-2025	
4. Description Preparation Date:	
1-2-2025	
5. Available Attendance Forms:	
Classroom+online	
6. Number of Credit Hours (Total) / Number of Units (Total)	
2 hours theory / 3 hours practical (5 hours) / 3 units	
7. Course administrator's name (mention all, if more than one name)	
Name: 1- Dr. SADDAM MOWAFK HASSAN Email: DR.SADDAM_HASSAN@uomosul.edu.iq	
8. Course Objectives	
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>Introducing students to the common types of Nematode and their effect on crops, and explaining their transmiss methods and infection mechanisms.</li> <li>Provide an understanding of the basic biology and ecology Nematode, with an emphasis on the impact of environmen factors on their spread and development.</li> <li>Students learned the skills of diagnosing caecilian infectio and analyzing the factors affecting them, using laboratory te and field observation.</li> <li>Study means and methods of prevention and control Nematode, including the use of pesticides and advanc agricultural techniques such as biological control.</li> <li>Analyze the economic and environmental impacts ofpest, and study sustainable and preventive management methods reduce their impact on crops and the environment.</li> <li>Enhancing students' skills in planning and implementing fi experiments and scientific studies to effectively treat and control caecilian infestations.</li> <li>Encouraging students to research and interact with mod literature and research in the field ofpest, and to contribute developing innovative solutions to meet current challenges</li> </ul>

		this field.			
9. Teaching and Learning Strategies					
Strategy		<ul style="list-style-type: none"><li>• Brainstorming</li><li>• Teamwork</li><li>• Discussion</li><li>• Discovery learning</li><li>• Problem solving or problem-based learning</li><li>• E-Learning</li><li>• Practical field training</li><li>• Think, discuss, share</li></ul>			
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 Theoretical	A1 Knows the pest, its divisions, and its harms	Definition of the pest - classification of pests according to economic importance and feeding behavior - damage caused by pests	Interactive lecture, brainstorming, dialogue and discussion, self-learning	semester test 1, final test
2	2 Theoretical	A1 knows a historical overview of agricultural pests	Theoretical: A historical overview of agricultural pest management - the concept or definition of integrated pest management - the reasons leading to the adoption of a pest management system - the objectives of the pest management system - the main elements of integrated pest management	interactive lecture, brainstorming, dialogue and discussion, self-learning	semester test 1, final test

3	2 Theoretical	b 1 Number of survey methods and factors affecting the samples	Theoretical: methods of field survey and sampling - factors affecting the field sample - sampling and observer methods	Interactive lecture, brainstorming, dialogue and discussion, self-learning	semester test 1, final test
4	2Theoretical	b2 Write a report on injury estimation methods	Theoretical: Methods for estimating infestation and how to calculate pest density on different crops	Interactive lecture, brainstorming, dialogue and discussion, self-learning	semester test 1, final test
5	2Theoretical	b2Write a report on agricultural pest infections	Theoretical: How to prepare reports on infestations and estimate pest density - Sampling methods for pests that live below the surface of the soil and aquatic insects	, interactive lecture, brainstorming, dialogue and discussion, self-learning	semester test 1, final test, report.
6	2Theoretical	Theoretica b2Write a report on agricultural pest infections	Theoretical: How to prepare reports on infestation and estimate pest density - Sampling methods for pests that live and feed on plants.	interactive lecture, brainstorming, dialogue and discussion, self-learning	short test, final test

7	2Theoretical	Theoretical a3 Understand the critical economic limit and the factors affecting it	Theorecal Theoretical: The critical economic limit - The history of the critical economic limit. Population density levels of pests according to economic importance - Methods of estimating it and the factors determining the use of the critical limits - Examples of expressing the values of the critical economic limit.	interactive lecture, brainstorming, dialogue and discussion, self-learning	semester test 2, final test
8	2Theorecal	Theoretical: a4Knows the factors that must be taken into account when determining the critical economic limit	Theory: Factors that must be taken into consideration when estimating the critical economic limit of a pest - the benefits of applying the economic critical limit	interactive lecture, brainstorming, dialogue and discussion	self-learning, semester test 2, final test
9	2Theoretical	a4 is familiar with applied control methods	Theoretical: Applied control methods - the role of agricultural operations and their applications in integrated pest management programs	Interactive lecture, brainstorming, dialogue and discussion, self-learning	semester test 2, final test.
10	2Theoretical	Theoical A4 is familiar with physical and chemical control methods	Theoretical: Physical and mechanical means used in integrated pest control management programs	interactive lecture, brainstorming, dialogue and discussion, self-learning	semester test 2, final test.

11	2Theoretical	Theoretical: A4 is familiar with physical and chemical control methods	Theoretical: Physical and mechanical means used in integrated pest control management programs	interactive lecture, brainstorming, dialogue and discussion, self-learning	final exam
12	2Theoretical	Theoretical: a3 Understands legislative control and its means	Theoretical: Regulatory and legislative control in integrated pest control management programs - Legislative methods and agricultural quarantine - Objectives of agricultural quarantine	Interactive lecture, brainstorming, dialogue and discussion, field training, practical exercises, self-learning.	final exam
				Interactive lecture, brainstorming, dialogue and discussion, field training, practical exercises, self-learning	short practical test.
13	2Theoretical	Theoretical: A2 Explains the role of biological control in pest control	Theoretical: The role of biological control in the pest management system - insect parasites - predators - characteristics that must be present in successful biological enemies - benefits or benefits of using biological control strategies - methods used in biological control programs - bacterial control (pathogens) of insects - characteristics Must be present in the successful pathogen	Dialogue and discussion, self-learning	Report

14	2Theoretical	T b2 Writes a report on the features and benefits of bacterial control heoretical:	Theoretical: Advantages and benefits of bacterial control - disadvantages and difficulties of bacterial control - bacteria - fungi - viruses - snakeworms (nematodes) - insect-pathogenic protozoa	Interactive lecture, brainstorming, dialogue and discussion, self-learning	report.
15	2Theoretical	Theoreticab2 Writes a report on agricultural pesticides and their role in pest controll:	Theoretical: Insecticides in the insect pest management system - the relationship between dose, concentration, and toxicity - the toxic effect of pesticides - the principles adopted in dividing pesticides - the general principles in selecting pesticides - the principles adopted in dividing insecticides.	Brainstorming, dialogue and discussion, self-learning	Report

#### 11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc

#### 12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

## The theoretical subject teacher

Dr.saddam mowafak hassan



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الدكتور  
سaddam موفاك حسن  
رئيس قسم وقاية النبات



A large, stylized handwritten signature in blue ink.

أ.د. هادي محمد  
رئيس اللجنة العلمية