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eeds and methods of control	
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## Course Objectives

Course Objectives

Enabling the student to understand, understand and identify the nature of the life of the bush, the benefits and harms of the bush, ways to combat them, including agricultural, mechanical, biological and chemical methods, in addition to an extensive study on the totals of herbicides and methods of adding them to combat the weeds

## Teaching and Learning Strategies

Strategy

- 1- Education strategy teamwork planning.
- 2- Brainstorming education strategy and discussions.
- 3- E-learning strategy.

## Course Structure

Week	Hours	Required  Learning  Outcomes	Unit or subject	Learning method	Evaluation method
1	2Theoretical 3 practical	Theoretical: A1 b1: Defines, enumerates and explains the jungles, their benefits and their harms Practical: B6: The division and classification of jungle plants is counted	Theoretical: The weed and its definitions Practical: The weed name	(theoretical) Auditory methods. Style of writing on the blackboard. Direct dialogue style. Electronic class Google Classroom. (practical) Assigning tasks and reporting.	Short exams, assignment of homework, discussions, student attendance
2	2Theoretical 3 practical	Theoretical: A2: Defines the regionalization and enumerates	Theoretical: Localizing weed plants and ways to spread them	(theoretical) Auditory methods. Style of writing on the blackboard. Direct dialogue style. Electronic class	Short exams, assignment of homework, discussions, student attendance

		the qualities related to the regionalization and the means of the spread of the weed Practical: B7: Explains the characteristics of the weed plants related to adaptation	Practical: The regional	Google Classroom. (practical) Assigning tasks and reporting.	
3	2Theoretical 3 practical	Theoretical: B2a3: Defines the life antibodies (known the life antibodies, the number of places where the anti-life materials are present) Practical: B8: Enumerates the different breeding methods of weed plants	Theoretical: The competition Practical: Reproduction	(theoretical) Auditory methods. Style of writing on the blackboard. Direct dialogue style. Electronic class Google Classroom. (practical) Assigning tasks and reporting.	Short exams, assignment of homework, discussions, student attendance
4	2Theoretical 3 practical	The theoretical A4 b3: Describes the ways of entry of antibiotic substances (explain the ways of entering the antibiotic substances into the environment, explain the methods of washing and volatilization) Practical: C5: Explains the effect of stillness on weed plants	Theoretical: biological control  Practical: Stillness	(theoretical) Auditory methods, Style of writing on the blackboard. Direct dialogue style. Electronic class Google Classroom. (practical) Assigning tasks and reporting.	
	2Theoretical 3 practical	Theoretical: A3 b2: c1 uses resistance methods (select the best	Theoretical:  Methods to control the weed	(theoretical) Auditory methods. Style of writing on the blackboard. Direct dialogue style.	Short exams, assignment of homework, discussions, student attendance

Course Description Form Course Name: Weeds and methods of control Course Code: WECO303 Semester / Year: 2025/2024 spring Description Preparation Date: 1/9/2024 Available Attendance Forms: Attended Number of Credit Hours (Total) / Number of Units (Total) (75 hours) (3.5 units) Course administrator's name (mention all, if more than one name) Name: Dr. Mohammed Akram Abdulateef Ghadeer nawaf thanoon Email: mohammed.akram1985@uomosul.edu.iq Ghadeer.nawaf.alobaidy@uomosul.edu.iq Course Objectives Enabling the student to understand, understand and identify the nature of the life of Course Objectives the bush, the benefits and harms of the bush, ways to combat them, including agricultural, mechanical, biological and chemical methods, in addition to an extensive study on the totals of herbicides and methods of adding them to combat the weeds Teaching and Learning Strategies 1- Education strategy teamwork planning. Strategy 2- Brainstorming education strategy and discussions. 3- E-learning strategy. Course Structure Evaluation method Required Unit or subject Learning method Week Hours Learning name Outcomes Theoretical: Theoretical: (theoretical) Short exams, 2Theoretical 1 The weed and A1 b1: Defines. Auditory methods. assignment of 3 practical its definitions enumerates and Style of writing on the homework, explains the blackboard. discussions, student jungles, their Practical: Direct dialogue style. attendance benefits and The weed Electronic class their harms name Google Classroom. (practical) Practical: B6: The Assigning tasks and division and reporting. classification of jungle plants is counted 2 Theoretical: 2Theoretical Theoretical: (theoretical) Short exams, 3 practical A2: Defines Localizing Auditory methods. assignment of weed plants Style of writing on the homework. the and ways to blackboard. discussions, student regionalization spread them Direct dialogue style. attendance and Electronic class enumerates

		the qualities related to the regionalization and the means of the spread of the weed Practical: B7: Explains the characteristics of the weed plants related to adaptation	Practical: The regional	Google Classroom. (practical) Assigning tasks and reporting.	
.3	2Theoretical 3 practical	Theoretical: B2a3: Defines the life antibodies (known the life antibodies, the number of places where the anti-life materials are present) Practical: B8: Enumerates the different breeding methods of weed plants	The competition  Practical:  Reproduction	(theoretical) Auditory methods. Style of writing on the blackboard. Direct dialogue style. Electronic class Google Classroom. (practical) Assigning tasks and reporting.	Short exams, assignment of homework, discussions, student attendance
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5	2Theoretical 3 practical	Theoretical: A3 b2: c1 uses resistance methods (select the best	Methods to control the weed	(theoretical) Auditory methods. Style of writing on blackboard. Direct dialogue styl	discussions, student

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		methods used to reduce the spread of weedes) Practical: C6: Explains the preventive means to reduce the spread of the weed	Practical: Getting to know the weed	Electronic class Google Classroom. (practical) Assigning tasks and reporting.	
6	2Theoretical 3 practical	Theoretical: C2: Employs means to reduce the spread of weeds (use mechanical and agricultural methods in eliminating weeds scattered in agricultural fields) Practical: B9: Demonstrates the quantitative qualities of the weed	Theoretical:  Methods of resistance  Practical:  The qualities of the weed quantity	(theoretical) Auditory methods Style of writing on the blackboard. Direct dialogue style. Electronic class Google Classroom. (practical) Assigning tasks and reporting.	Short exams, ussignment of homework, discussions, student attendance
7	2Theoretical 3 practical	Theoretical: B5: Writes about the history of chemical control and the benefits of control (write a report on chemical control explaining how herbicides were used for the first time, explain the benefits of chemical control) Practical: B10, d4: illustrates the division of weed herbicides	Theoretical Chemical control Practical; weed herbicides	(theoretical) Auditory methods. Style of writing on the blackboard. Direct dialogue style. Electronic class Google Classroom. (practical) Assigning tasks and reporting.	Short exams, assignment of homework, discussions, student attendance
8	2Theoretical 3 practical	Theoretical: C3; Shows the determining factors of the lethal effect (among the	Chemical aggregates  Practical:	(theoretical) Auditory methods. Style of writing on the blackboard. Direct dialogue style. Electronic class	Short exams, assignment of homework, discussions, student attendance

Theoretical Theoretical: C4: herbicide permeability from leaves (uy during the Chemical Control Department places of permeability of herbicides) Practical: D5: Determines the volume of the spray solution  Theoretical: 3 practical Theoretical: D5: Determines the volume of herbicide transport cable from the fall of the herbicide drop to its arrival in the killing areas) Practical: B12: Shows the types of optionality when spraying herbicides on wheat plants and not affected, select the type of optionality when noticing the impact of broad-leaf bush and the fall of the proteinal and not affected, select the type of optionality when noticing the impact of broad-leaf bush and the fall of the proteinal and not affected, select the type of optionality when noticing the impact of broad-leaf bush and the fall of the proteinal and not affected, select the type of optionality when noticing the impact of broad-leaf bush and the fall of the proteinal and not affected, select the type of optionality when noticing the impact of broad-leaf bush and the fall of the proteinal and not affected, select the type of optionality when noticing the impact of broad-leaf bush and the fall of the proteinal and not affected, select the type of optionality when noticing the impact of broad-leaf bush and the fall of the proteinal and not affected, select the type of optionality when noticing the impact of broad-leaf bush and the fall of the proteinal and not affected, select the type of optionality when noticing the impact of broad-leaf bush and the fall of the proteinal absorption and transfer dialogue style. Electronic class and transfer the blackboard. Short exams, assignment of broad-leaf bush and transfer dialogue style. Electronic class and transfer transport able blackboard. Short exams, assignment of broad-leaf bush and transfer defeated to the blackboard. Style of writing on the blackboard. Style o			determining factors of the killer effect of any chemical compound) Practical: B11: Demonstrates the physical and chemical qualities of weed	The qualities of weed herbicides	Google Classroom. (practical) Assigning tasks and reporting.	
B6,e5 Schedules the transport of herbicides (the herbicide from the fall of the herbicide drop to its arrival in the killing areas) Practical: B12: Shows the types of births and their uses  11 2 Theoretical 3 practical  Theoretical: D1: Determines the types of optionality when spraying herbicides on wheat plants and not affected, select the type of optionality when noticing the impact of broad-leaf bush	9		Theoretical: C4: herbicide permeability from leaves (try during the Chemical Control Department places of permeability of herbicides) Practical: D5: Determines the volume of the spray	Herbicide absorption and transfer Practical: Spruying	Auditory methods. Style of writing on the blackboard. Direct dialogue style. Electronic class Google Classroom. (practical) Assigning tasks and	assignment of homework, discussions, student
Theoretical:  D1: Determines the types of optional (Select the type of optionality when spraying herbicides on wheat plants and not affected, select the type of optionality when noticing the impact of broad-leaf bush	10	THE RESERVE OF THE PARTY OF THE	Theoretical B6,c5: Schedules the transport of herbicides (the herbicide transport table from the full of the herbicide drop to its arrival in the killing areas) Practical: B12: Shows the types of births	Herbicide absorption and transfer Practical:	Auditory methods. Style of writing on the blackboard. Direct dialogue style. Electronic class Google Classroom. (practical) Assigning tasks and	assignment of bomework, discussions, student
( The state of the			Theoretical: D1: Determines the types of optional (Select the type of optionality when spraying herbicides on wheat plants and not affected, select the type of optionality when noticing the impact of	Elective Practical:	Auditory methods. Style of writing on the blackboard. Direct dialogue style. Electronic class. Google Classroom. (practical) Assigning tasks and reporting.	assignment of homework, discussions, student attendance

		plants and aerved the impact of narrow-leaf plants) Practical: B13: Distinguishes the optional types of herbicides			
12	2Theoretical 3 practical	Theoretical: D2: explains the morphological, physiological optional (explain how the herbicide is transformed within the plant, explain the optional morphological mechanism in plants) Practical: B14: Measures the sustainability of the herbicide solution in the soil	Theoretical: Elective Practical: Sustainability	Auditory methods.  Style of writing on the blackboard.	Short exams, assignment of homework, discussions, student attendance
13	2Theoretical 3 practical	Theoretical: D3: Explains the relationship of herbicides and the environment (explanation of the relationship of herbicides to the environment in terms of the date of addition and concentration of the herbicide) Practical: :C7 tests the methods of transport of the herbicide within the soil	Theoretical:  Weed and epidemic herbicides  Practical:  Transportation and preparation of herbicides	(theoretical) Auditory methods. Style of writing on the blackboard. Direct dialogue style. Electronic class Google Classroom. (practical) Assigning tasks and reporting.	
14	2Theoretical 3 practical	Theoretical E1: Verifies the existence of sustainability	Theoretical: Sustainability	(theoretical) Auditory methods. Style of writing on the blackboard.	discussions, student
		(he investigates	Practical:	Direct dialogue style.	attendance

		the cause of sustainability of herbicides in soil or on plant purts) Practical E3: Documents the various weed scenes	Field visit	Electronic class Google Classroom (practical) Assigning tasks and reporting	
15	2Theoretical 3 practical	Theoretical: E2: Measures the retention of herbicides in the soil (measure the duration of retention of the herbicide in the soil and do you think that there are factors related to its effective survival in the soil) Practical: E4: measures the amount of herbicide needed to combat	Theoretical: Sustainability Practical: Scientific visit	(theoretical) Auditory methods. Style of writing on the blackboard. Direct dialogue style. Electronic class Google Classroom. (practical) Assigning tasks and reporting.	Short exams, assignment of homework, discussions, student attendance

Course Ev	Calendar methods	Calendar date (week)	Degree	Relative weight%
No.	DO STATE OF THE PARTY OF THE PA	week 4	2.5	2.5
1	1report	week 5	2.5	2.5
2	2 report	week 6	2	2
3	(1) Quiz	week 14	2	2
4	(2) Quiz	week 15	1	1
5	(3) Quiz	week 6	7.5	7.5
б	(1) exam	week 11	7.5	7.5
7	(2) exam		40	40
8	exam theoretical final	exam theoretical final week 15	5	5
9	practical field project	weeks 3, 5	2	2
10	evaluation field	week 1	1	1
11	(1) Quiz practical	week 4	0.5	0.5
12	(2) Quiz practical	10000000000000000000000000000000000000	1	1
13	(3) Quiz practical	week 14		
14	question and homework	6,8,9,10,11,12,13 weeks	5.5	5.5
15	exam practical final	exam theoretical final	- TOTAL CONTRACTOR OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COL	%100
	Total	100	%100	201100

Learning and Teaching Resources

Required textbooks (curricular books, if,any)

the basics of Weeds and methods of control

Main references (sources)

Barbara D. Booth & Clarence J. Swanton AND Stephen D. Murphy.2003.Weed Ecology in Natural and Agricultural Systems - Robert L. Zimdahl / 2007.Fundamentals of

	Weed Science / OMAS J. MONACO & STEPHEN C. WELLER AND FLOYD M. ASHTOM. 2002.WEED SCIENCE
Recommended books and references (scientific journals, reports)	https://www.tjas.org/index.php/tas
Electronic References, Websites	https://magri.mosuljournals.com/ - https://www.tjas.org/index.php/tas

Theoretical subject teacher: Dr. Mohammed Akram Abdulateef

Practical subject teacher: Ghadeer nawaf thanoon

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Head of the Agriculture Extension: Dr Fires Radling Aljuboori

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