Republic of Iraq
The Ministry of Higher Education
& Scientific Research



University:AlMuthana College:Science Department:Biology Stage:Fourth

Lecturer name: Maitham abas makei

**Academic Status:.Lacturer** 

**Qualification:**Msc

Place of work: AlMuthana University/

College of Science.

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## **Teaching plan for the semester form(2018-2019)**

Course Instructor Maitham abas Makei							
E mail	Maitham abas@yahoo.com						
Title	Soil & water microbiology.						
Course	(15) week, two hours per week (theoretical part).						
Coordinator	(15) week, two hours per week (practical part).						
Course Objective	The relationship between microorganisms and environment, soil and water						
Course Description	explain the concept of micro-organisms and its divisions and classify public and attributes her knowledge of the extent of its impact on the soil and the aquatic environment and knowledge of the physical and chemical factors affecting the .microbial activity in both environments						
Textbook							
References	بيئة الاحياء الدقيقة (منشورات جامعة دمشق/كلية العلوم/ د. ابتسام حمد و د. عدنان احمد علي 2009) البيئة المانية ( ا.د. حسين علي السعدي / 2009) . علم الاحياء المجهرية للمياه ( رشيد محجوب المصلح /1988 / جامعة بغداد ) . علم الاحياء المجهرية ( طالب كاظم المفرجي / 1990 / جامعة بغداد / كلية العلوم ) . علم الاحياء المجهرية للتربة والمياه /الجزء العملي ( طالب كاظم المفرجي وشذى سلمان العزاوي 1991 علم الاحياء المجهرية التربة والمياه /الجزء العملي ( طالب كاظم المفرجي وشذى سلمان العزاوي 1991 ميكروبيولوجية التربة البيئي / الصديق احمد مصطفى/2011 .						
	Term Tests		یق احمد مصط <i>قی/<sub>011</sub></i> Ouizzes		میکروبیونوج Final		
Course	Term rests	Laboratory	Quizzes	Troject	Exam		
Assessment					Exam		
<b>General Notes</b>	Type here general notes regarding the course						

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week	Date	Topics Covered	Lab. Experiment	Notes
			Assignments	
1		Soil characteristics		
2		Soil microbial environment		
3		Soil microbes		
4		The role of soil microbes in the carbon turnovers		
5		Microbial nitrogen cycle		
6		The role of microbes in the soil phosphorus turnovers		
7		The role of microbes in the soil sulfur turnovers		
8		The role of soil microbes in pesticide residue analysis		
9		Water Environment microbial		
10		Microbial contamination of water sources		
11		Bacterial and marine and fresh groundwater and hot water		
12		Physical and chemical factors affecting microbial activity		
13		Physical and chemical factors affecting microbial activity		
14		The relationship between microbial water with all of the plants and aquaculture		
15		The waste liquid treatment of drinking water		

Instructor Signature: Dean Signature:Maitham A.Makei