

نموذج توصيف مقرر
Course Description Form

Name of College\Faculty : Science

Name of Department: Biological Sciences

اسم الكلية:

اسم القسم العلمي:

Course Name	Microbiology	اسم المقرر
Course No.	0490-105	رقم المقرر
No. of Credits	3	عدد الوحدات
Theoretical Hours	2	عدد الساعات النظرية
Practical Hours	3	عدد الساعات المحلّية
Course topics		مواضيع المقرر
1. Introduction. 2. Microbial Cell structure and function. 3. Microbial Nutrition and Growth. 4. Metabolism. 5. Classification and diversity of Microorganisms.		
Text book: (Name, Author , Year , Publisher)		عنوان الكتاب : (الاسم ، المؤلف ، سنة الطبع ، دار النشر)
1. Joanne Willey, Kathleen Sandman and Dorothy Wood. 2022. Microbiology. 12th edition. Mc Graw Hill. New York, USA. 2. Michael Madigan, Jennifer Aiyer, Daniel Buckley, W. Sattley and David Stahl. 2021. Brock Biology of Microorganisms, Global Edition 16th Edition Pearson, London. UK.		
References: (Name , Author , Year . Publisher)		عنوان المرجع : (الاسم ، المؤلف ، سنة الطبع ، دار النشر)
1. Michael Madigan, Jennifer Aiyer, Daniel Buckley, W. Sattley and David Stahl. 2021. Brock Biology of Microorganisms, Global Edition 16th Edition Pearson, London. UK		

Prerequisites

99988090 or 0488161

متطلبات المقرر

Grading	Term Exams	2x12	24%		الاختبارات	آلية رصد المقرر
	Quizzes	6	%		امتحانات قصيرة	
	Homework/Assignments	2	%		واجبات	
	Lab. Work	30	%		مختبر	
	Class Participation		%		مشاريع (دراسة ميدانية)	
	Final Exam	40	%		الاختبار النهائي	
						%

أهداف مخرجات المقرر :					
الرقم	أهداف مخرجات المقرر :			المستوى المطلوب من عضو هيئة التدريس لتحقيق الهدف :	
	أمثله من المقرر لتحقيق هذه الأهداف			عالي	متوسط
1					
2					
3					
4					
5					
6					
الحقول					
المهارات					
منسق المقرر (اسم عضو هيئة التدريس المشرف على توصيف المقرر ، توقيع ، الختم و الرتبة الأكاديمية)					
تاريخ إعداد النموذج				/ /	

Course objectives					
No.	Course Objectives (Learning Outcomes)	Example(s) of relevant (Topics and activities)	Recommended Level to satisfy the objectives		
			High	Medium	Low
1	To define Microbiology, to know a brief history of microbiology, and recognize the different groups of microorganisms.	Few examples on historical events in the development of Microbiology. Brief Description		√	

		of the major groups of microorganisms			
2	To know and appreciate the importance of microorganisms: in terms of their benefits, their role in diseases, and their effect on the environment.	Their benefits, their role in diseases, immunology, and ecology			
3	To know prokaryotic and eukaryotic cell structure and function.	For example, study the description cell wall, plasma membrane in prokaryotes and the nucleus and mitochondria in eukaryotes	√		
4	To learn about the nutritional needs of microorganisms, their mechanisms of nutrient uptake and how they grow and how to measure their growth. Also students are expected to know the affect of the environmental physical factors on the growth of microorganisms.	Study microbial growth curve, nutritional groups and physical factors such as temperature, pH, water activity and radiation that affect microbial growth		√	
5	To know what are the metabolic process taking place in microorganisms.	For example, study aerobic and anaerobic respiration and fermentation		√	
6	To know the diversity of microorganisms.	Major characteristics and classification of viruses, prokaryotes, and eukaryotic microorganisms.			√
Fields	Environmental Sampling, assessing ecological impacts of microbial processes on natural and built environments, Environmental Monitoring, Microbiology and Mycology				
Skills	Sampling Techniques: Experimental Design, Knowledge of Material Properties, Understanding Microbial Metabolism.				



Coordinator (Name and Rank):	Professor Nedaa Yousef Ali Alsarraf
Signature and stamp:	أ.د. نداء يوسف علي الصراف Prof. Nedaa Y Ali Alsarraf قسم العلوم الإنسانية جامعة الكويت
Date:	11\11 \2025