	Ministry of Higher Education and Scientific Research - Iraq Al-Mustaqbal University College Of Sciences Department of biology	

MODULE DESCRIPTOR FORM

وصف المادة الدراسية

Module Information
معلومات المادة الدراسية

Module Title	MICROBIOLOGY 1	**Module Delivery**	
Module Type	CORE	**-Theory Lecture** **-Lab** **-PracticalSeminar**	
Module Code	UOMU0601034		
ECTS Credits	6		
SWL (hr/sem)	150		
Module Level	1	**Semester of Delivery**	1
Administering Department	BIO	**College**	SCI
Module Leader	Ali kumait hamad	**e-mail**	ali.kumait.hamad@uomus.edu
Module Leader's Acad. Title	LECTURE	**Module Leader's Qualification**	MSC
Module Tutor		**e-mail**	
Peer Reviewer Name		**e-mail**	
Review Committee Approval		**Version Number**	

Relation With Other Modules
العلاقة مع المواد الدراسية الاخرى

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

Module Aims, Learning Outcomes and Indicative Contents اهداف المادة الدراسية ونتائج التعليم والتعلم	
Module Aims اهداف المادة الدراسية	This study aims to: 1. Giving information to the student regarding the origins of microbiology. 2. Defining the types of microorganisms. 3. Studying the composition of internal and external microorganisms. 4. Branches of microbiology.
Module Learning Outcomes مخرجات تعلم المادة الدراسية	1. Students were able to learn the latest information on microorganisms. 2. The student should know the most important terms related to the subject. 3. The student should understand the most important methods of isolating microorganisms. 4. The student should know the important and distinctive characteristics of microorganisms. 5. Identifying "bacteria" by studying the types of microscopes used and then examining them in their natural form under a light microscope. This is followed by the use of different staining methods to examine the cellular structures.
Indicative Contents المحتويات الارشادية	Indicative content includes the following. 1. Students must wear lab gowns, gloves and masks 2. Handle with care laboratory chemicals 3. Do not use the mobile device inside the laboratory 4. Do not eat food and drinks inside the laboratory 5. Ensure that tools and hands are sterilized before and after work
Learning and Teaching Strategies استراتيجيات التعليم والتعلم	
Strategies	A. Theoretical lectures B. Practical laboratories C. Films and slideshows D. Scientific trips for field application

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم خلال الفصل	102	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم خلال الفصل	98	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب	7
Total SWL (h/sem) الحمل الدراسي الكلي خلال الفصل	200		

Module Evaluation تقييم المادة الدراسية						
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**	
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11	
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 7	
	Projects / Lab.	1	10% (10)	Continuous		
	Report	1	10% (10)	13	LO # 5, 8 and 10	
Summative assessment	**Midterm Exam**	2 hr	10% (10)	7	LO # 1-7	
	Final Exam	2hr	50% (50)	16	All	
Total assessment			100% (100 Marks)			

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Lecture. 1: Introduction in microbiology
Week 2	Lecture 2: History of microbiology
Week 3	Lecture 3: Classification of microbiology
Week 4	Lecture 4: Bacterial Cell Structure- Gram Positive
Week 5	Lecture 5: Bacterial Cell Structure- Gram Negative
Week 6	Exam
Week 7	Lecture 6: Microbial Growth
Week 8	Lecture 7: Nutritional Types of Microorganism

Week 9	Lecture 8: Control of Microbial Growth
Week 10	Lecture 9: Immunology
Week 11	Lecture 10: Microbial genetics
Week 12	Lecture 11: Pathogenic microbiology
Week 13	Lecture 12: Food microbiology
Week 14	Lecture 13: soil microbiology
Week 15	Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Type of microscopes
Week 2	Lab 2: List of Microbiological Lab Instrument
Week 3	Lab 3: Bacterial Smear Preparation
Week 4	Lab 4: Microbial Staining (Simple Stain)
Week 5	Lab 5: Gram Stain
Week 6	Exam
Week 7	Lab 6: Capsule Stain
Week 8	Lab 7: Spore Stain
Week 9	Lab 8: Acid Fast Stain
Week 10	Lab 9: Fungal Stain
Week 11	Lab 10: Culture Media
Week 12	Lab 11: Measurement of Bacterial Growth
Week 13	Lab 12: Motility Tests
Week 14	Lab 13: Sterilization Methods
Week 15	Exam

Learning and Teaching Resources مصادر التعليم والتدريس		
	Text	**Available in the Library?**
Required Texts		Yes

	- Procop, G. W., Church, D. L., Hall, G. S., & Janda, W. M. (2020). Koneman's color atlas and textbook of diagnostic microbiology. Jones & Bartlett Publishers. - Tortora, G. J., Funke, B. R., & Case, C. L. (2015). Microbiology: an introduction. Pearson Higher Ed. - Talaro, K., Chess, B., Wiersema, D. S., & Sen, P. (2013). Foundations in Microbiology, 2012. McGraw-Hill. - Madigan, M. T., Clark, D. P., Stahl, D., & Martinko, J. M. (2010). Brock biology of microorganisms 13th edition. Benjamin Cummings.	Yes
Recommended Texts	Microbiology : A laboratory Manual 12 th edition . Pearson .2th edition. General Microbiology lab Manual . memoir . 2018.	Yes
Websites	https://faculty.ksu.edu.sa/sites/default/files/140_mbio-final_notes.pdf https://rlmc.edu.pk/themes/images/gallery/library/books/Microbiology/Text_Book_of_Microbiology.pdf	

APPENDIX:

GRADING SCHEME مخطط الدرجات				
Group	**Grade**	التقدير	**Marks (%)**	**Definition**
Success Group (50 - 100)	**A** - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	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	التقدير	(45-49)	More work required but credit awarded
	F – Fail	امتياز	(0-44)	Considerable amount of work required
Note:				

NB 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.