جامعة المستقبل
AL MUSTAQBAL UNIVERSITY

MODULE DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information					
Module Title	**Medical mycology**			**Module Delivery**	
Module Type	**Core**			☒ **Theory** ☒ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	**UOMU0307042**				
ECTS Credits	**5**				
SWL (hr/sem)	**125**				
Module Level	**2**		**Semester of Delivery**	**4**	
Administering Department			**College**		
Module Leader	**Hussain Mahdi Abid**		**e-mail**	Hussain.Mahdi.Abid@uomus.edu.iq	
Module Leader's Acad. Title			**Module Leader's Qualification**	**Ph.D**	
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date			**Version Number**	1.0	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	**MBT-23012**	**Semester**	**3**
Co-requisites module		**Semester**	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	1-This course gives an overview of clinically significant medical mycology. 2- Understanding Taxonomy of medical fungi. 3- Developing student skills to identify medical fungi using conventional methods 4- Developing student skills to identify medical fungi using molecular techniques 5- Providing knowledge about types of mycoses and fungal diseases. 6- Providing students with knowledge of antifungal drugs and fungal resistance 7- Development student personality
Module Learning Outcomes تاجرخم ملعتلا ةداملل ةيساردلا	Student will be able to: 1- Processing of clinical specimens in mycology lab include collection and transportation. 2- Identification of medical fungi 3- Using specific methods for the isolation and cultivation of medical fungi. 4- Preservation and maintenance of fungal cultures. 5- Distinguishing the morphological features of medical fungal species 6- Using molecular techniques for fungal identification 7- Recognizing antifungal drugs and fungal resistance. 8- Knowing the risks of mycotoxins and importance of mushrooms. 9- Improving some skills for future academic and career responsibilities.
Indicative Contents المحتويات الإرشادية	Based on SSWL (h/sem.) In lecture lab #1-3 they will need (15 hr). In lecture lab #4- 6 they will need (10 hr). In lecture lab #8-10 they will need (15hr). In lecture lab #11-14 they will need (15hr). In lecture lab #15 they will need (5hr).

Learning and Teaching Strategies تايجيتارتسا ملعتلا ميلعتلاو	
Strategies	1- This course as lectures using PowerPoints and videos. 2- Practical Labs and reports 3- Questioning and dialogue. 4- Problem based learning.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اعوبسا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	**64**	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	**2**
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	**61**	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	**2**
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**125**		

Module Evaluationتقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	3	10	4, 6, 10	#1 and#2, #3-#5, #9
	Assignments	2	10	13 and 14	#1 and #12
	Projects / Lab.	1	10	continuous	all
	Report	1	10	15	#14
Summative assessment	**Midterm Exam**	2h	10	7	#1-#6, #8-#14
	Final Exam	3h	50	16	all
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	**Introduction to medical mycology: General characteristics and Fungal morphotypes**
Week 2	**Taxonomy of medical fungi and Changes in nomenclature for medical mycology**
Week 3	**Fungal identification: Classic phenotypic and biochemical techniques, Molecular Approaches: DNA-based identification methods and Serologic testing.**
Week 4	**Diagnosis of fungal infection: Classical approaches: direct microscopic examination of clinical specimens, histopathologic examination and culture. Molecular diagnostics.**
Week 5	**The epidemiology of fungal infections**
Week 6	**Superficial mycoses**
Week 7	**Midterm Exam**
Week 8	**Cutaneous mycoses**
Week 9	**Subcutaneous mycoses**
Week 10	**Systemic mycoses**
Week 11	**Opportunistic mycoses**
Week 12	**Endemic mycoses**
Week 13	**Antifungal drugs**
Week 14	**Resistance to antifungal drugs**
Week 15	**Mushroom and mycotoxins**
Week 16	**Preparing for final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	**Biosafety and instruments and tools for studying medical fungi.**
Week 2	**Collection and transport specimens for specimen processing, preparation of media.**
Week 3	**Direct Microscopic Examination & Histopathologic Examination.**
Week 4	**Inoculation, preservation and maintenance of fungal cultures.**
Week 5	**Identification of fungal isolates based on morphological features.**
Week 6	**Serologic tests.**

Week 7	**Midterm Exam**
Week 8	**Identification of fungi based on molecular techniques.**
Week 9	**Morphological features for identification of medical zygomycetes.**
Week 10	**Morphological features for identification of medical ascomycetes.**
Week 11	**Morphological features for identification of medical ascomycetes.**
Week 12	**Morphological features for identification of medical basidiomycetes.**
Week 13	**Antifungal susceptibility testing**
Week 14	**Mushrooms and mycotoxins**
Week 15	**Preparing for final Exam**

Learning and Teaching Resources

	Text	Available in the Library?
Required Texts	Chander, J. 2017. Textbook of medical mycology. JP. Medical Ltd.	
Recommended Texts	Wickes, B.L., Wiederhold, N.P. 2018. Molecular diagnostics in medical mycology. *Nat Commun* **9**, 5135.. Chatterjee, S. S., & Chakrabarti, A. 2009. Epidemiology and medical mycology of fungal rhinosinusitis. *Otorhinolaryngol Clin Int J*, *1*(1), 1-13.	
Websites	https://doi.org/10.1016/j.cub.2021.01.074	

Grading Scheme
طخطم تاجردلا

Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	**A -** Excellent	زايتما	90 - 100	Outstanding Performance
	B - Very Good	ديج ادج	80 - 89	Above average with some errors
	C - Good	ديج	70 - 79	Sound work with notable errors
	D - Satisfactory	طسوتم	60 - 69	Fair but with major shortcomings
	E - Sufficient	لوبقم	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX –** Fail	راسب (ديق المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks 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.