MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية				
Module Title	Medicinal plants		**Module Delivery**	
Module Type	Core		☒Theory ☐Lecture ☒Lab ☐Tutorial ☐Practical ☒Seminar	
Module Code	UOMU037032			
ECTS Credits	5			
SWL (hr/sem)	125			
Module Level			**Semester of Delivery**	7
Administering Department	Type Dept. Code		**College**	Type College Code
Module Leader	Najat Hameed Jasim		**e-mail**	najat.hameed.jasim@uomus.edu.iq
Module Leader's Acad. Title			**Module Leader's Qualification**	Msc.
Module Tutor	Name (if available)		**e-mail**	E-mail
Peer Reviewer Name	Name		**e-mail**	E-mail
Scientific Committee Approval Date			**Version Number**	1.0

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Botany , cell biology , plant anatomy , plant physiology ,medical plant , tissue culture, Pharmacognosy .	**Semester**	3, 4, 5
Co-requisites module		**Semester**	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Objectives أهداف المادة الدراسية	1-How to extract and isolate the active constituents using standard methods. 2-How to identify and evaluate of isolated products by physical and chemical methods, and also by chromatographic techniques and authentic materials. 3-How to discuss the therapeutic actions of main classes of phytochemical and their interactions with other herbs or drugs. 4-How evaluate the use of plant and plant products as medicinal agents
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1-Practicing different methods of extraction methods of extraction on active constituents. 2-Practicing different methods of extraction methods of identification on active constituents.
Indicative Contents المحتويات الإرشادية	In lecture lab #1-#5 they will need (10hr). In lecture lab #7- #13 they will need (50 hr). In lecture lab #15 they will need (10hr).

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering types of simple experiments involving some sampling activities that are interesting to the students.

Student Workload (SWL)			
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	79	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	5
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	50	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	3
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**125**		

Module Evaluation					
تقييم 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)		

	Weekly Syllabus of theory medicinal plants
	المنهاج الاسبوعي النظري لمادة (النباتات الطبية والعقاقير)

	Material Covered
Week 1	General introduction: the scope of medical plants and pharmacognosy, definitions & basic principles, natural sources of drugs, crude drugs.
Week 2	Classification of natural products, plant nomenclature & taxonomy, production of crude drugs: cultivation, collection, drying, storage
Week 3	Pharmacological activities of medicinal plants, adulteration of crude drugs Deterioration of crude drugs
Week 4	Chemistry of natural products Quality control of crude drugs
Week 5	Phytochemistry: Extraction of plant materials
Week 6	**Mid exam**
Week 7	Introduction:General biosynthesis pathway of secondary metabolites
Week 8	Carbohydrates & introduction of glycosides
Week 9	Flavonoid glycosides
Week 10	Tannins , Introduction of volatile oils Plant containing volatile oils
Week 11	Resins and resin combination
Week 12	Non medicinal toxic plants
Week 13	Alkaloids
Week 14	Tissue culture of medicinal plants: introduction & history
Week 15	Application of plant tissue culture , environmental & biological control, production of secondary substances
Week 16	Preparatory week before the final Exam

| | Delivery Plan (Weekly Lab. Syllabus) |
	المنهاج الاسبوعي للمختبر
	Material Covered
Week 1	Extraction techniques
Week 2	Review and general talk about glycoside
Week 3	Identification of cardiac glycosides
Week 4	**First exam**
Week 5	Extraction of cardiac glycosides
Week 6	Extraction of anthra-quinone
Week 7	Identification of anthra-quinone
Week 8	Extraction of saponine glycosides
Week 9	Identification of saponine glycosides
Week 10	**Second Exam**
Week 11	Tannins extraction and identification
Week 12	Separation of volatile oils
Week 13	Introduction of alkaloids , extraction of piperine from black pepper
Week 14	Extraction of Belladona alkaloids
Week 15	Preparatory week before the final Exam

<table>
<tr><td colspan="3">Learning and Teaching Resources
مصادر التعلم والتدريس</td></tr>
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	Text	Available in the Library?
Required Texts	- Pharmacognosy and Pharmaco biotechnology by Tyler, 1996. - Practical manual, college of pharmacy/ University of Baghdad.	
Recommended Texts	- Text books - Scientific journals - Thesis and dissertation	
Websites	International network for information about medicinal plants .	

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<tr><td colspan="5">Grading Scheme
مخطط الدرجات</td></tr>
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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**	راسب (قيد 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.