



Course description form

1. : Course Name					
Medicinal and aromatic plants					
2. :Course Code					
MEAP315					
3. :Semester/Year					
2024 spring , semester					
4. Date this description was prepared					
2024/2/1					
5. Available forms of attendance:					
My presence					
6. :(total)/number of units (total) Number of study hours					
. theoretical hours + 3 practical hours / 3 25 units					
7. (Name of the course administrator (if more than one name is mentioned					
:Amiel - Name: A. M. Dr., Fanar Hashem Youssef Alfanar@uomosul.edu.iq Fouad Abdul Jabbar Name: M. M. Flowers of					
8. Course objectives					
<p>Theoretical</p> <p>Explaining the importance of medicinal plants .1 and methods of extracting active ingredients used .in pharmaceutical industries</p> <p>Entering the agricultural sector with .2 participating in the distinguished efficiency by .cultivation of economic medicinal plants</p> <p>Directing students towards the desire to obtain .3 better experiences when applying for postgraduate studies</p>			<p>Practical</p> <ul style="list-style-type: none"> Enabling the student to learn about the types substances, their of medicinal and aromatic s uses, their therapeutic effect, their effective substances, and how to extract them practically 		
9. Teaching and learning strategies					
<p>Theoretical</p> <p>Interactive lecture - Brainstorming - Dialogue and discussion - cultivation of some medicinal and Assigning reports plants Conducting monthly and daily examinations - Presentations of methods for extracting active - substances</p>			<p>Practical</p> <ul style="list-style-type: none"> Assigning the tasks of preparing reports, planting seeds of types of medicinal plants, experiments on extracting and conducting some volatile oils 		
10. Course structure					
the week	hours	Required learning outcomes	Name of the unit or topic	Learning method	Evaluation method
1	Theoretical2	The :Theoretical student explains the	The :Theoretical concept of medicinal	theoretical	Short exams,

	Practical3	<p>concept of medicinal plants and their relationship with other sciences</p> <p>The student :Practical acquires knowledge and concepts on how to identify medicinal and aromatic plants, .and their importance</p>	<p>and aromatic plants</p> <p>A historical overview of the use of medicinal and aromatic plants</p> <p>Learn about the concept of medicinal plants and aromatic plants</p> <p>Concept of :Practical medicinal and aromatic plants</p> <p>A historical overview of the uses of medicinal and aromatic plants</p> <p>The different s of classification medicinal and aromatic plants, and the ingredients for producing medicinal .and aromatic plants</p>	<p>audio methods</p> <p>Writing on the board</p> <p>Direct dialogue style</p> <p>practical</p> <p>Assigning tasks and reports</p>	<p>assignments, discussions</p>
2	Theoretical2 Practical3	<p>The student :theoretical explains the most important uses of medicinal plants</p> <p>The student :Practical acquires knowledge and concepts in knowing a historical overview of the use of medicinal plants in .treating diseases</p>	<p>Benefits :Theoretical of medicinal and aromatic plants</p> <p>Reasons for interest in and cultivation of medicinal and aromatic plants</p> <p>Different uses of medicinal and aromatic plants</p> <p>Natural :practical metabolites in plants</p> <p>Use a presentation</p> <p>Identify some of the and medicinal aromatic plants found in the wooden canopy of the college's Horticulture Department</p>	<p>theoretical</p> <p>audio methods</p> <p>Writing on the board</p> <p>Direct dialogue style</p> <p>practical</p> <p>Assigning tasks and reports</p>	<p>Short exams, assignments, discussions</p>
3	Theoretical2 Practical3	<p>The :Theoretical student becomes familiar with the most important obstacles to expanding the cultivation of medicinal plants</p> <p>The student :Practical acquires knowledge and concepts in knowing the benefits and economic importance of plants in medicinal increasing national .income</p>	<p>:Theoretical</p> <p>Advantages and disadvantages of collecting medicinal and aromatic plants wild</p> <p>Advantages of growing medicinal and aromatic plants</p> <p>Obstacles to expanding the cultivation and production of medicinal and atic plants, and a arom discussion and short exam among students</p>	<p>theoretical</p> <p>audio methods</p> <p>Writing on the board</p> <p>Direct dialogue style</p> <p>practical</p> <p>Assigning tasks and reports</p>	<p>Short exams, assignments, discussions</p>

			<p>Methods of :Practical producing medicinal and aromatic plants</p> <p>The most important recommendations for promoting the production and export of medicinal and .aromatic plants</p> <p>Discussing student sreport</p>		
4	Theoretical2 Practical3	<p>The :Theoretical student evaluates the most important factors cultivation affecting the of medicinal plants</p> <p>The student :Practical acquires knowledge and concepts in knowing the uses of .medicinal plants</p>	<p>natural :Theoretical factors</p> <p>The harmful effects of wind, air humidity and heat on plants</p> <p>Effect of rain and velheight above sea le collection :Practical and harvesting conditions</p> <p>Determine production during the seasons and seasons of the year</p> <p>A quick daily quiz on the previous lecture, viewing some examples of medicinal and aromatic flowers and seeds</p> <p>Field work in the field rect and di identification of the plants available in the woody canopy, with discussions and answering students' questions</p>	<p>theoretical audio methods Writing on the board Direct dialogue style practical Assigning tasks and reports</p>	<p>Short exams, assignments, discussions</p>
5	Theoretical2 Practical3	<p>The :Theoretical student suggests names for plants that are grown when the acidity of the soil or neighboring soils is high</p> <p>The student :Practical acquires knowledge and concepts in knowing the methods distillation of steam and extracting volatile .oils</p>	<p>Climatic :Theoretical factors</p> <p>Geological factors</p> <p>Aeration, salts in the soil and its acidity</p> <p>sage plant, :Practical rosemary plant, basil</p> <p>Celery, chrysanthemum, aloe vera, coriander</p> <p>Identify the plants the present in vegetable field and the woody canopy</p>	<p>theoretical audio methods Writing on the board Direct dialogue style practical Assigning tasks and reports</p>	<p>Short exams, assignments, discussions</p>
6	Theoretical2 Practical3	<p>The :Theoretical student learns about most important the plants that contain a high percentage of volatile oils</p>	<p>First :Theoretical semester exam</p> <p>Introduction to s of cultivation method and propagation in beds, lines, and the</p>	<p>theoretical audio methods board Writing on the Direct dialogue style practical Assigning tasks and</p>	<p>Short exams, assignments, discussions</p>

		The student :Practical acquires knowledge and concepts in knowing the obstacles to growing medicinal plants and how to treat them	distance between plants Methods and times of harvesting the crop the first :practical exam Fenugreek, castor, sukran, licorice Discussing student reports	reports	
7	Theoretical2 Practical3	The :Theoretical student learns about medicinal plants and the parts used for food and spices The student :Practical knowledge acquires and concepts in knowing the importance of the advantages of growing .medicinal plants	Division :Theoretical of medicinal and aromatic plants according to life cycle Division of medicinal and aromatic plants according to the part used ion of Classificat medicinal and aromatic plants according to their content of secondary metabolites Packing :practical Storage Factors affecting the storage of medicinal and aromatic plants	theoretical audio methods Writing on the board Direct dialogue style practical Assigning tasks and reports	Short exams, assignments, discussions
8	Theoretical2 Practical3	The :Theoretical student identifies the most important methods of propagating medicinal plants The student :Practical acquires knowledge and concepts in knowing the most important natural factors that affect the cultivation of medicinal .plants	Sexual :Theoretical reproduction, its advantages and disadvantages, and how to qualitatively control genetic traits in seeds Factors affecting seed viability in storage Types of rest and rest phase breaking coefficients :Practical Fundamentals of collecting and preparing medicinal and aromatic plants The stages that a medicinal plant goes through from collection to marketing Discussing student reports on the topic of collecting and marketing, field .practices for students	theoretical audio methods Writing on the board Direct dialogue style practical Assigning tasks and reports	Short exams, assignments, discussions
9	Theoretical2 Practical3	The :Theoretical student will be familiar with the method of propagating some difficult and economical	Growing :Theoretical seeds in a sustainable s field Vegetative propagation, its	theoretical audio methods Writing on the board dialogue style Dire practical	Short exams, assignments, discussions

		<p>medicinal plants</p> <p>The student :Practical acquires knowledge and concepts in knowing the effect of geological factors on the cultivation of .medicinal plants</p>	<p>methods, and micropropagation</p> <p>Tissue culture</p> <p>Conduct a field visit to horticultural facilities to grow seeds of medicinal plants</p> <p>View and :Practical learn about medicinal and aromatic plants</p> <p>Documenting with a report the medicinal and aromatic plants that were observed</p> <p>Taking some models of the plants that were observed to apply the drying and storage process by the students as .homework</p>	<p>Assigning tasks and reports</p>	
10	Theoretical2 Practical3	<p>The :Theoretical student learns how to dry and preserve specimens of medicinal plants</p> <p>The student :Practical acquires knowledge concepts on how and to grow and propagate .medicinal plants</p>	<p>Types of :Theoretical drying methods</p> <p>Screening, packaging, storage and preservation</p> <p>A PowerPoint presentation explaining how the drying process and other processes are performed</p> <p>te A field visit to priva nurseries to learn about the most important medicinal and aromatic plants</p> <p>An overview :Practical of the extraction process of medicinal and aromatic plants</p> <p>Extraction in medicinal and aromatic plants</p> <p>Extraction methods</p>	<p>theoretical</p> <p>audio methods</p> <p>g on the board</p> <p>Writing assignments, Direct dialogue style discussions</p> <p>practical</p> <p>Assigning tasks and reports</p>	<p>Short exams, assignments, discussions</p>
11	Theoretical2 Practical3	<p>The :Theoretical student learns about the nature of volatile oils and their uses</p> <p>The student :Practical knowledge acquires and concepts in knowing the importance of methods and when to collect different types of medicinal plants</p>	<p>The :Theoretical importance of volatile oils, their properties, and their presence in plants</p> <p>Physiological functions of volatile eir uses oils and th with a PowerPoint presentation</p> <p>How to extract and diagnose volatile oils, discuss with students, and take a short exam</p> <p>The steps :Practical that must be taken during the process of extracting active</p>	<p>theoretical</p> <p>audio methods</p> <p>Writing on the boar</p> <p>Direct dialogue style</p> <p>practica</p> <p>Assigning tasks and reports</p>	<p>Short exams, assignments, discussions</p>

			substances from medicinal plants How to get a concentrated extract Field practices for the students in the wooden canopy, with the students being given an assignment to extract rosemary oil and bring the concentrated extract		
12	Theoretical2 Practical3	The :Theoretical student judges the extent of benefit from the method of extracting some fixed oils to benefit from them at home The student :Practical knowledge acquires and concepts on how to divide medicinal plants according to the part used to obtain the active substance	:Theoretical Introduction to plants containing fatty acids, their importance and types Identifying plants that contain fatty acids and hods for detecting met them Extracting fatty acids, conducting a discussion among the students, and conducting a short exam Introduction to alkaloids, their importance, characteristics and benefits jasmine :Practical plant, fragrant plant, s, mint, cumin, hibiscu chamomile, nigella sativa	theoretical audio methods Writing on the board Direct dialogue style practical Assigning tasks and reports	Short exams, assignments, discussions
13	Theoretical2 Practical3	The :Theoretical student leads discussion groups on how to separate alkaloids chromatographically The student :Practical acquires knowledge and concepts on how to classify medicinal plants according to their content of secondary compounds	:Theoretical partitioning of alkaloids Method of extracting salkaloid Chemical :Practical composition of volatile oil Chemistry of terpene compounds in essential oils Terpene classification of essential oils	theoretical audio methods Writing on the board Direct dialogue style practical Assigning tasks and reports	exams, Short assignments, discussions
14	Theoretical2 Practical3	The :Theoretical student expresses his point of view on how to benefit from the medical extraction of clasicosides The student :Practical should be able to know the most important drying methods of medicinal plants in the correct way	Second :Theoretical semester exam Glucosesides, their general characteristics, and their medicinal and botanical benefits Methods of separating chalacosides Second :Practical semester exam A lecture on the	theoretical audio methods Writing on the board Direct dialogue style practical Assigning tasks and reports	Short exams, assignments, discussions


			ne association, isoprene discussing student reports on volatile oil		
15	Theoretical2 Practical3	The :Theoretical student participates with his colleagues in identifying the names of some medicinal plants during the visit The student :Practical should be able to know the most important methods of screening, packing and storing in warehouses that meet .nssanitary conditio	Conduct :Theoretical a field visit to horticultural facilities to grow some medicinal plants Make a field :Practical visit to the college laboratories to see and learn about some extraction devices	theoretical audio methods Writing on the board dialogue style Direct practical Assigning tasks and reports	Short exams, assignments, discussions


11. Course evaluation

T	Evaluation methods	Evaluation date (one week)	Class	Relative weight %
1	Theoretical final report + practical reports	My theory is weeks 15 -work is 1 My weeks 15	theoretical + 6 7 practical	%13
2	Short testQuiz1	weeks 3	theoretical + 2 4 practical	%6
3	Midtermexam (theoretical and practical)	weeks 9	theoretical + 5 10 practical	%15
4	Short test2Quiz	weeks 12	theoretical + 2 4 practical	%6
5	Final practical test	Practical exams week	20	%20
6	Final theoretical test	The week of theoretical exams	40	%40
	the total		100	100


12. Learning and teaching resources


(Required textbooks (methodology, if any	aromatic plants Book of medicinal and Atarqji-Ammar Al ..Dr Daoudi-Dr.. Iyad Al
(Main references (sources	Binding to the most important methods for extracting effective materials from teaching preparation
Recommended supporting books and references (...scientific journals, reports)	Medicinal Plants / Kirkuk University Journal of
Electronic references, Internet sites	Medical Plants

 Practical subject teacher
Assistant teacher
Zohoor Fuaad Abdaljabar


Head of Department
Professor Asmaa Muhammed Ac



Theoretical subject teacher
Assistant Professor 
Fanar Hashim Yousif


Chairman of the scientific
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