



# Course Specifications

<b>Course Title:</b>	<b>Plant Taxonomy</b>
<b>Course Code:</b>	<b>23072253-3</b>
<b>Program:</b>	<b>BSc Biology</b>
<b>Department:</b>	<b>Biology</b>
<b>College:</b>	<b>Aljumum University College</b>
<b>Institution:</b>	<b>Umm Al-Qura University</b>

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## A. Course Identification

<b>1. Credit hours:</b> 3 hours
<b>2. Course type</b>
a. University <input type="checkbox"/> College <input type="checkbox"/> Department <input checked="" type="checkbox"/> Others <input type="checkbox"/>
b. Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>
<b>3. Level/year at which this course is offered:</b> 4 <sup>th</sup> level / 2 <sup>nd</sup> year
<b>4. Pre-requisites for this course (if any):</b> Plant Kingdom (23072205-3).
<b>5. Co-requisites for this course (if any):</b>

### 6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom		70 %
2	Blended		
3	E-learning		10 %
4	Correspondence		10 %
5	Other		10 %

### 7. Actual Learning Hours (based on academic semester)

No	Activity	Learning Hours
<b>Contact Hours</b>		
1	Lecture	26
2	Laboratory/Studio	42
3	Tutorial	6
4	Practical/Field work/Internship	6
5	Others (specify)	10
	<b>Total</b>	<b>90</b>
<b>Other Learning Hours*</b>		
1	Study	
2	Assignments	
3	Library	
4	Projects/Research Essays/Theses	
5	Others (specify)	
	<b>Total</b>	

\* The length of time that a learner takes to complete learning activities that lead to achievement of course learning outcomes, such as study time, homework assignments, projects, preparing presentations, library times

## B. Course Objectives and Learning Outcomes

### 1. Course Description

Plant taxonomy course describe principals of plant taxonomy (identification, classification, nomenclature, the flowers (types, sexuality, the non- essential whorls (calyx and corolla) and the aestivation, the essential whorls (androecium and gynaecium) and the types of placentation. Also, describe types of inflorescences, types of fruits, the angiosperm, the different between the monocot and the dicot plants, as well as Examples of monocot families.

### 2. Course Main Objective

- Definition the knowledge of plant taxonomy and different patterns of plant classifications
- Clarify the essential and non- essential flowers whorls
- Illustrate the different types of inflorescences and fruits
- Explain the definition of significant differences between monocot and dicot plants in angiosperms
  - The application of previous studies on the most important plant families, their taxonomic status, and characteristics
  - The student familiar with ways to use the keys and industrial training and put it to distinguish between different plant species
  - Induce the students to use the Internet in the search for all that is new in the field of study

### 3. Course Learning Outcomes

CLOs		Aligned PLOs
1	<b>Knowledge:</b>	
1.1	Definition of plant classification and the basis of the different patterns, herbarium and its role in preservation the dried plant collections.	
1.2	- Definition of the kinds of flowers and how to explain the different whorls, arranged in inflorescences, and the types of fruits.	
1.3	- Participated in teaching plants angiosperms and the most important plant families and the species related to these families	
1.4	- Illustrate the use of industrial keys to distinguish between different plant families.	
1.5		
1.6		
2	<b>Skills:</b>	
2.1	- The ability to make scientific comparisons between different types of flowers	
2.2	-The ability to the flowering plants into families	
2.3	-the ability to known how to Identify and Nominate The plant species	
2.4.	Use computer and internet to search the latest information in taxonomy	

CLOs		Aligned PLOs
	of plants	
<b>3</b>	<b>Competence:</b>	
3.1	Developing oral presentations.	
3.2	Communicating personal ideas and thoughts.	
3.3	Work independently and as part of a team to finish some assignments.	
3...	Communicate results of work to others.	

### C. Course Content

#	List of Topics	No. of Weeks	Contact Hours
1	Explanation what means by plant taxonomy and its principals (identification, classification, nomenclature .....).	1	2
2	The flowers (types, sexuality.....).	1	2
3	The non- essential whorls (calyx and corolla) and the aestivation.	1	2
4	The essential whorls (androecium and gynaecium) and the types of placentation.	1	2
5	Types of inflorescences.	1	2
6	Types of fruits.	1	2
7	The angiosperm, the different between the monocot and the dicot plants.	1	2
8	Examples of dicot families.	1	2

### D. Teaching and Assessment

#### 1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
<b>1.0</b>	<b>Knowledge</b>		
1.1	<ul style="list-style-type: none"> <li>-Definition of plant classification and the basis of the different patterns, herbarium and its role in preservation the dried plant collections.</li> <li>- Definition of the kinds of flowers and how to explain the different whorls, arranged in inflorescences, and the types of fruits.</li> <li>- Participated in teaching plants angiosperms and the most important plant families and the species related to these families</li> <li>- Illustrate the use of industrial keys to distinguish between different plant families.</li> </ul>	<ul style="list-style-type: none"> <li>- Lectures</li> <li>- laboratories to dissect the flowers and examine the types of inflorescences and fruits and the different classifying keys</li> <li>- periodic duties</li> </ul>	<ul style="list-style-type: none"> <li>Written and oral periodical and final exams.</li> </ul>
			Lab exams and reports.
			Evaluation of lab activities results
<b>2.0</b>	<b>Skills</b>		

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
2.1	<p><b>Cognitive skills to be developed</b></p> <ul style="list-style-type: none"> <li>- The ability to make scientific comparisons between different types of flowers</li> <li>-The ability to the flowering plants into families</li> <li>-the ability to known how to Identify and Nominate The plant species</li> </ul>	<ul style="list-style-type: none"> <li>-Use the worksheets individual duties to ask each student comparisons between plants in each community</li> <li>-Collective duties by distributing pictures of objects on the plants groups (teams) and ask each group to identify the object in the image and classifies them</li> </ul>	<p>Oral tests to assess cognitive skills by using pictures or presentations or video clips</p> <p>Will be a degree of collective duties accounted for 40% of the degree of team work duties either individual student to get extra score if solved correctly early</p>
2.2	<p><b>Interpersonal Skills and Responsibility:</b></p> <ul style="list-style-type: none"> <li>- Work effectively in a group</li> <li>- The ability to judge people and situations objectively based on fixed moral standards is not affected personal</li> <li>- The ability to dialogue and to accept criticism and accept the other opinion</li> <li>- The ability to express their own opinion without fear or hesitation and improves their self-confidence</li> </ul>	<ul style="list-style-type: none"> <li>-That the student research in books and online on the subject of the article to be determined in agreement with the professor of subject in order to enhance the self-learning</li> <li>-When you provide students with presentations to be discussed and put to dialogue with them and are evaluated in the form specified by the professor Article</li> <li>-nominate a leader for each group periodically</li> <li>-the distribution of tasks between team members under the supervision of the commander</li> <li>- When the student to give the presentation is to discuss its performances and dialogue with the students during the submitting of view and is based on the evaluation form specific standards by</li> </ul>	<ul style="list-style-type: none"> <li>-Evaluating the group discussion</li> <li>-Evaluating scientific analysis done by the Group</li> <li>-Note and follow the behaviour of the student inside the hall</li> <li>-The commitment of the student's.</li> </ul>

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
		Professor Article. Ask the students to make small search project during the semester	Midterm and final exams.
<b>3.0</b>	<b>Competence</b>		
3.1	<b>Communication, Information Technology and Numerical Skills:</b> -Skills, oral and written communication -Using computer and search the Web for information sources -Use a power point for Proposals Group -The use of statistical methods in the analysis of information	assign the student to view and throwing solutions to the issues that required to be analyzed -commissioning duties appliances rely on search in the World Wide Web -The use of modern technology in scientific research -Find information in databases and sites corresponding universities	- Assess the students through what is being discussed in the lecture - Assessment of individual and collective duties based on predefined criteria
3.2	<b>Psychomotor Skills:</b> The use of the microscope - Anatomy of organisms - Drawing samples	-Assign the student using a microscope to examine samples -Assign the student autopsy -Assign the student draw samples	-Follow up the student in the lab during the examination and dissection and evaluation - Monitoring degrees of draw

## 2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Periodical Exam(s)	4	10%
2	Mid Term Exam (Theoretic)	8	20%
3	Mid Term Exam (practical)	9	10%
4	Reports and essay	11	5%
5	Final Practical Exam	15	15%
6	Final Exam	16	40%
7			
8			

\*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

## E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

- Two hours office per week.

## F. Learning Resources and Facilities

### 1. Learning Resources

<b>Required Textbooks</b>	<ul style="list-style-type: none"> <li>• A private note prepared by the professor of the course by the help of specialized references</li> <li>• PowerPoint presentation prepared by Professor rapporteur on its website.</li> </ul>
<b>Essential References Materials</b>	<ul style="list-style-type: none"> <li>- Bolous, L. (2000): Flora Of Egypt. Vol. 1-4 .El Hadara Press,Cairo –Egypt.</li> <li>- Collenette,Sheila (1985): Flowers of Saudi Arabia. Scorpion publishing ltd. London.</li> <li>- خليفة، سيد فرج (١٩٧٤): النبات التصنيفي. قسم النبات – كلية العلوم – جامعة عين شمس.</li> <li>- سعد، شكرى ابراهيم (١٩٧٥): تصنيف النباتات الزهرية- الطبعة الثالثة – الهيئة المصرية العامة للكتاب، فرع الإسكندرية.</li> <li>- السحار، قاسم فؤاد (١٩٨٣): تصنيف النباتات الزهرية – الطبعة الأولى – مكتبة مصر.</li> </ul>
<b>Electronic Materials</b>	<a href="https://www.coursera.org/">https://www.coursera.org/</a> <a href="https://www.edx.org">https://www.edx.org</a>
<b>Other Learning Materials</b>	Communicate with the different sites of the Internet site and the instructor (Google and other .....).

### 2. Facilities Required

Item	Resources
<b>Accommodation</b> (Classrooms, laboratories, demonstration rooms/labs, etc.)	<ul style="list-style-type: none"> <li>• Prepared lecture hall with audio –visual aids.</li> <li>• Equipped laboratory with DNA facilities.</li> </ul>
<b>Technology Resources</b> (AV, data show, Smart Board, software, etc.)	<ul style="list-style-type: none"> <li>• Digital lab containing 15 computers.</li> </ul>
<b>Other Resources</b> (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	<ul style="list-style-type: none"> <li>• Incubators, autoclaves, measuring equipment, water bath, digital balances, pH meters, safety facilities.</li> </ul>

## G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Strategies for Obtaining Student Feedback on Effectiveness of Teaching	the Instructor or by the Department	<ul style="list-style-type: none"> <li>• Questionnaires</li> <li>• Discuss students</li> <li>• Midterm and final tests.</li> <li>• Former review.</li> </ul>
Other Strategies for Evaluation of Teaching	the Instructor or by the Department	<ul style="list-style-type: none"> <li>• Peer consultation by departmental specialized committee.</li> <li>• Self-evaluation of the program by the departmental plan committee.</li> </ul>

**Evaluation areas** (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

**Evaluators** (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

**Assessment Methods** (Direct, Indirect)

## H. Specification Approval Data

<b>Council / Committee</b>	
<b>Reference No.</b>	
<b>Date</b>	

**Head of Department**



**Dr. Wessam M. Filfilan**

**Stamp**

