



Course Specifications

Course Title:	Plant Ecology
Course Code:	23072252-3
Program:	BSc Biology
Department:	Biology
College:	Aljumum Collage
Institution:	Umm Al-Qura University

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A. Course Identification

1. Credit hours: 3 hours
2. Course type a. University <input checked="" type="checkbox"/> College <input type="checkbox"/> Department <input type="checkbox"/> Others <input type="checkbox"/> b. Required <input type="checkbox"/> Elective <input type="checkbox"/>
3. Level/year at which this course is offered: 4th level / second year
4. Pre-requisites for this course (if any): Plant kingdom (23072205-3)
5. Co-requisites for this course (if any): None

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	3 hrs per weeks	100%
2	Blended		
3	E-learning		
4	Correspondence		
5	Other		

7. Actual Learning Hours (based on academic semester)

No	Activity	Learning Hours
Contact Hours		
1	Lecture	42
2	Laboratory/Studio	30
3	Tutorial	
4	Others (specify)	
	Total	
Other Learning Hours*		
1	Study	
2	Assignments	
3	Library	
4	Projects/Research Essays/Theses	
5	Others (specify)	
	Total	

* 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

- This course is reviewed and up dated each year according to the recent and current researches and discoveries in this field.
- Use of scientific illustration assigned to student groups.

2. Course Main Objective

This course introduce the students to the concept of ecology, its divisions, and components and the relationships within the ecosystem, and the negative and positive role of man towards the environment. Also, this course deals with the factors affecting the plant growth in their environment (soil, temperature etc.).

- By the end of this course the students should
 - Describe the ecosystem functional structure.
 - Illustrate energy in ecological ecosystem.
 - Draw food chain and food webs
 - Illustrate the biochemical cycles.
 - Exchange ideas, principles and information by oral, written and visual means.
 - Work effectively both in a team and independently.
 - Use the information technology together.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge:	
1.1	Understanding the plant ecology and their types	
1.2	Factors affecting on plant vegetation	
1.3	Describe the ecosystem functional structure.	
1...		
2	Skills :	
2.1	Skill of getting experimental data.	
2.2	Skill of presenting data and results	
2.3	Skill of acquiring updates in plant ecology	
2...		
3	Competence:	
3.1		
3.2		
3.3		
3...		

C. Course Content

#	List of Topics	No. of Weeks	Contact Hours
1	Introduction	1 st week	2
2	Definition of Plant ecology, factors affecting the plant environment	2 nd week	2
3	Climatic factor (precipitation – temperature)	3 rd week	2
4	Light – Humidity- Wind- Evaporation	4 th week	2
5	Physiographic factor	5 th week	2
6	Biological factor, plant-plant relationship- plant – animal relationship Inter-relations of Living Organisms	6 th week	2

	(Mutualism, Commensalism, Parasitism).		
7	Soil factor (soil formation, soil Origin, structure)	7 th week	2
8	Soil physical properties	8 th week	2
9	Soil physical properties (cont.)	9 th week	2
10	Soil chemical properties	10 th week	2
11	Structure of the ecosystem - Energy in ecological systems	11 th week	2
12	Food web and food chain	12 th week	2
13	Biogeochemical cycles	13 th week	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
1.0	Knowledge		
1.1	Understanding the plant ecology and their types	Lectures and Mind maps.	<ul style="list-style-type: none"> - monthly exams - practical exam - Self-study included in the Exams - Homework
1.2	Factors affecting on plant vegetation	Video tapes, CDs and DVDs (audio visual s	<ul style="list-style-type: none"> - Discussion during the lectures - practical project in groups
...	Describe the ecosystem functional structure	Accelerated learning (learning by fun).	Final exam
2.0	Skills		
2.1	Skill of getting experimental data.	<ul style="list-style-type: none"> • Practical studies • Browsing in internet 	<ul style="list-style-type: none"> • Practical exam • Discussions panel
2.2	Skill of presenting data and results	<ul style="list-style-type: none"> • Self-studies to be included in exams • Home work 	<ul style="list-style-type: none"> • Self-study included in the Exams • Homework
2.3	Skill of acquiring updates in plant ecology	<ul style="list-style-type: none"> • Presentations by students lectures 	<ul style="list-style-type: none"> • Discussion practical project Presentations
3.0	Competence		
3.1			
3.2			
...			

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	periodic Exam	8th	20

#	Assessment task*	Week Due	Percentage of Total Assessment Score
2	Practical Exam	14th	20
3	Assignments (Homework + Activities+ Attendance)	weekly	20
4	Final exam	16 th	40

E. Student Academic Counseling and Support

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

3 hours of office and guidance in the week.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	<ul style="list-style-type: none"> • Molles M.C. (2008) Ecology. McGraw Hill, New York. • Botkin D.B. Keller E.A. (2007) Environmental Science. Wiley, New York. • Ricklefs R.E., Miller G.L. (2000) Ecology. John Wiley & Sons, New York.
Essential References Materials	
Electronic Materials	
Other Learning Materials	Students are required to use Microsoft word programme and PowerPoint programme also they are encouraged to use some mind map computer soft wares.

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classrooms, laboratories,
Technology Resources (AV, data show, Smart Board, software, etc.)	Smart Board
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	laboratory

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
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Evaluation Areas/Issues	Evaluators	Evaluation Methods
<p>University used to measure students feedback about the course every few years. In addition, a special form was designed by the department and are given at the end of term to measure the student's feedback about the quality of teaching and course contents. Information in this feedback form are treated confidentially and students are not asked to write their names in it.</p>	<p>Any complain from students about quality of teaching and/ or course contents are always treated confidentially and considered and discussed well to find the solutions for it. In addition, as mentioned previously the department form for students feedback are also seen and analysed to improve any shortage in any aspects or matters</p>	<p>Department teaching staff are always encourage to update their knowledge in the field of work by attending national and international conferences and self-developments courses held inside or outside the university campus and a record of that is kept for each academic staff.</p>

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

Council / Committee	
Reference No.	
Date	

Head of Department


Dr. Wessam M. Filfilan

Stamp

