



Course Specifications

Course Title:	Algae and its applications
Course Code:	68022252-3
Program:	Biology
Department:	Applied Science- Biology Department
College:	Adham 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 checked="" type="checkbox"/> Elective <input type="checkbox"/>
3. Level/year at which this course is offered: 4th
4. Pre-requisites for this course (if any): None
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	3
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

To study of the different algal groups in fresh and marine waters, their description, identification and taxonomy, biology including life cycle, and ecology to be familiar with the ecological and economic importance of algae and commercial use of algae.

2. Course Main Objective

The course covers the description of all algal groups, in both fresh and marine waters. The topics covered include: classification, morphology, environmental conditions, distribution, and life cycles. Also, ecological and economic aspects of different algal species and their commercial use will be discussed.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge:	
1.1	Build up knowledge about economic importance of algae	
1.2	Build up knowledge about identification of different groups and genera of algae of the local habitats	
1.3	Build up knowledge about the biology and ecology of different groups and their genera (the most common genera).	
1...		
2	Skills :	
2.1	Skill of identification of algae	
2.2	Skill of description of algae	
2.3	Skill of describing, measuring, evaluating the different environments of different algal species	
2...		
3	Competence:	
3.1		
3.2		
3.3		
3...		

C. Course Content

No	List of Topics	Contact Hours
1	Introduction: what are algae? – Importance of their study – Habitats – structure of algal cells, algal forms, general notes about reproduction – Classification	3
2	Division: Cyanophyta – general characters – systematic characteristics of classes, orders and families with examples of most dominant genera, including their habits, habitats, structure and life cycle.	6
3	Division: Chlorophyta – general characters – systematic characteristics of classes, orders and families with examples of most dominant genera, including their habits, habitats, structure and life cycle.	6
4	Division: Euglenophyta – general characters – systematic	3

	characteristics of classes, orders and families with examples of most dominant genera, including their habits, habitats, structure and life cycle.	
5	Division Xanthophyta – general characters – systematic characteristics of classes, orders and families with examples of most dominant genera, including their habits, habitats, structure and life cycle.	6
6	Division Phaeophyta – general characters – systematic characteristics of classes, orders and families with examples of most dominant genera, including their habits, habitats, structure and life cycle	3
7	Division Bacillariophyta – general characters – systematic characteristics of classes, orders and families with examples of most dominant genera, including their habits, habitats, structure and life cycle	3
8	Division Charophyta – general characters – systematic characteristics of classes, orders and families with examples of most dominant genera, including their habits, habitats, structure and life cycle	3
9	Division Rhodophyta – general characters – systematic characteristics of classes, orders and families with examples of most dominant genera, including their habits, habitats, structure and life cycle.	6
10	Economic importance of algae and its applications	3
Total		42

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	Build up knowledge about economic importance of algae	Lectures. Mind maps.	<ul style="list-style-type: none"> - monthly exams - practical exam - Self-study included in the Exams - Homework
1.2	Build up knowledge about identification of different groups and genera of algae of the local habitats		
1.3	Build up knowledge about the biology and ecology of different groups and their genera (the most common genera).		
2.0	Skills		
2.1	Skill of identification of algae	Lectures. Mind maps.	<ul style="list-style-type: none"> - monthly exams - practical exam - Self-study included in the Exams - Homework
2.2	Skill of description of algae		
2.3	Skill of describing, measuring, evaluating the different environments of different algal species		
3.0	Competence		
3.1			
3.2			

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
...			

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	periodic Exam	9th	20%
2	Practical Exam	14th	20%
3	Assignments (Homework + Activities+ Attendance)	weekly	20%
4	Final exam	16th	40%

*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 :

3 hours of office and guidance in the week.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	Algae (2000). Abdel Aziz Kablan, Idris Monir Turkey, Mohamed Mohamed Alhoseny (Eds.). Abo-Azzma Books Library.
Essential References Materials	The Algae (1973). V. J. Chapman, D. J. Chapman (Eds.). Macmillan and Co LTD
Electronic Materials	http://www.algae.com/fifhtoc.html http://www.seaweeds.com/fifhtoc.html
Other Learning Materials	

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

Item	Resources
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
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.	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	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.

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	