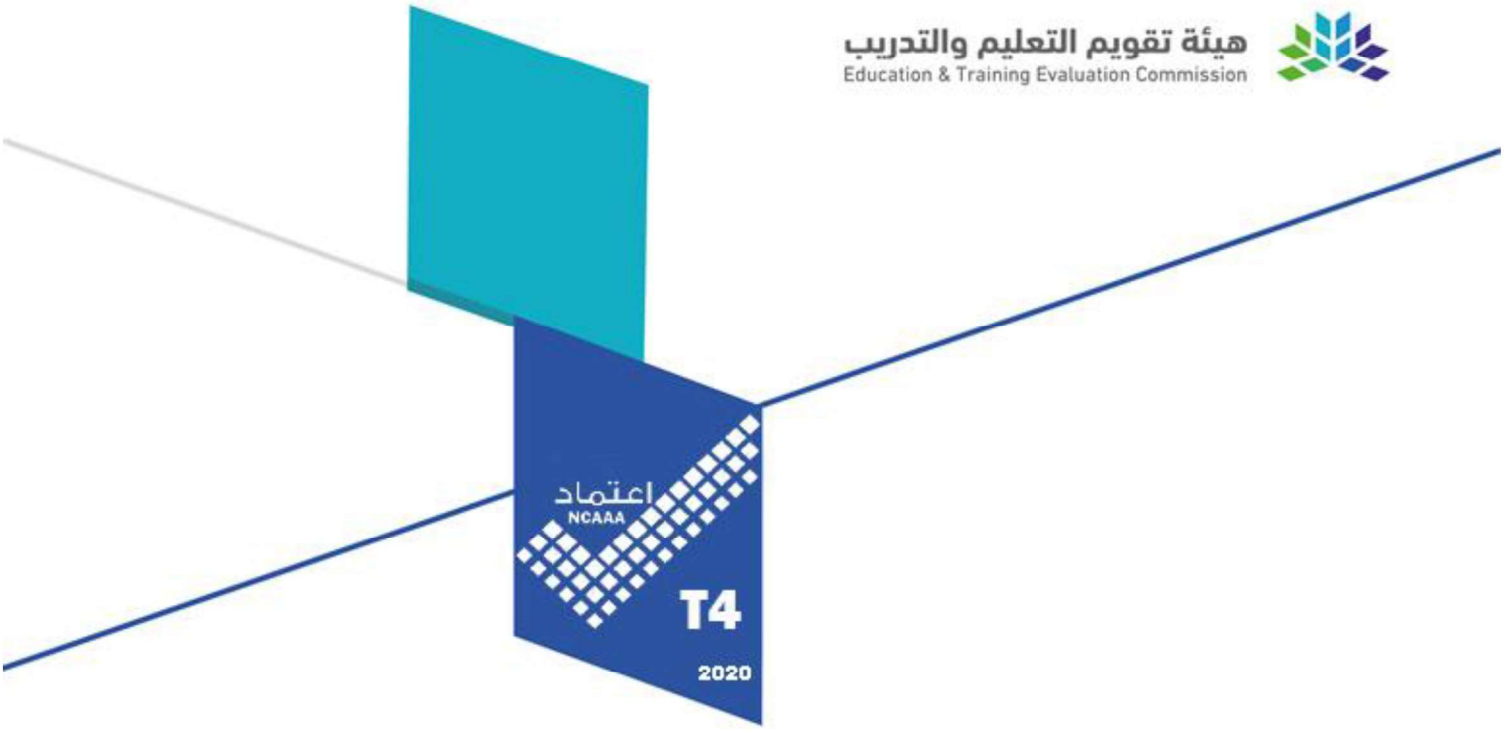
هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission



Course Specifications

Course Title:	**Phycology**
Course Code:	**2013207-3**
Program:	**Bachelor in Botany**
Department:	**Biology Department**
College:	**College of Sciences**
Institution:	**Taif University**

Table of Contents

A. Course Identification

1. Credit hours: 3 hr
2. Course type **a.** University ☐ College ☐ Department ☑ Others ☐ **b.** Required ☑ Elective ☐
3. Level/year at which this course is offered: 8th level / 3rd year
4. Pre-requisites for this course (if any)**:** Plant Kingdom 2012205-3
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**	6 hr/Week	100%
2	**Blended**	-	-
3	**E-learning**	-	-
4	**Distance learning**	-	-
5	**Other**	-	-

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	**Lecture**	30
2	**Laboratory/Studio**	20
3	**Tutorial**	-
4	**Others** (specify)	-
	Total	50

B. Course Objectives and Learning Outcomes

1. Course Description

This course discusses algae in various habitats, algal cells, algal division's, factors influencing algal reproduction and the type of algal thalli as well as economic importance of algae.

2. Course Main Objective

To distinguish between microalgae in various habitats, define the main components of cyanobacteria cells, distinguish between various prokaryotic and eukaryotic micro-algal division's, factors influencing micro-algal reproduction, predict the type of micro-algal morphogenesis and economic importance.

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	**Knowledge and Understanding:**	
1.1	Recognize the cyanobacteria and algal habits and habitats.	K1
1.2	Classify cyanobacteria and algae using morphology and other biochemical approaches in different classes.	K2
2	**Skills:**	
2.1	Distinguish between cyanobacteria and algae in various classes.	S1

CLOs		Aligned PLOs
2.2.	Illustrate economic and environmental importance of Algae.	S3
3	**Values:**	
3.1	Develop plans to perform specific tasks independently and as a team member.	V1

C. Course Content

No	List of Topics	Contact Hours
1	Introduction and definition of Algae and Phycology. General characteristics of Algae.	3L + 2P
2	The general structure of the algae and reproduction methods. The classification of Algae and Distribution of algae in different environments.	3L + 2P
3	General characteristics of the Division of *Cyanophyta* and uses	3L + 2P
4	General characteristics and life cycles of some genera of the Division of *Euglenophyta* and importance.	3L + 2P
5	General characteristics and life cycles of some genera of the Division of *Chlorophyta* and Economic importance	3L + 2P
6	General characteristics and life cycles of some genera of the Division of *Chrysophyta* and uses.	3L + 2P
7	General characteristics and life cycles of some genera of the Division of *Phaeophyta*.	3L + 2P
8	General characteristics and life cycles of some genera of the Division of *Rhodophyta*.	3L + 2P
9	Economic importance of Algae.	3L + 2P
10	Toxic Algae	3L + 2P
Total		30L + 20P

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 and Understanding:**		
1.1	Recognize the cyanobacteria and algal habits and habitats.	Lectures Open discussion	Paper-based exams
1.2	Classify cyanobacteria and algae using morphology and other biochemical approaches in different classes.	Lectures Concept maps	Paper-based exams Practical reports
2.0	**Skills:**		
2.1	Distinguish between cyanobacteria and algae in various classes.	Interactive learning Small group activities	Paper-based exams
	Illustrate economic and environmental importance of Algae.	Open discussion Brain storming	Practical reports Practical exam
3.0	**Values:**		
3.1	Develop plans to perform specific tasks independently and as a team member.	Interactive learning Small group activities	Assignments

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Midterm Exam	5th	20%
2	Semester Activities	Periodic	10%
3	Practical Reports	Weekly	20%
4	Final Practical Exam	11th	10%
5	Final Exam	12th	40%
Total			**100%**

***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:

6 hours per week (as defined in the teaching schedule of the faculty member) for academic advice and consultations.
Teaching staff is also available using Blackboard web site and Taif University "Edugate" System.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	- Sambamurty, A.V.S.S. (2005). A Textbook of Algae. 1st ed., I K International Publishing House, pp. 336. - حسين علي السعدي ونضال إدريس سليمان (٢٠٢٠). علم الطحالب، دار اليازوري العلمية للنشر والتوزيع، الأردن ٢٥٥ ص.
Essential References Materials	- Barsanti, L. and Gualtieri, P. (2014). Algae: Anatomy, Biochemistry, and Biotechnology. 2nd ed., CRC Press, pp. 176. - أحمد عبد السلام حسن عيسي و ادريس حمد عطية (٢٠٠٧). مقدمة فى علم الطحالب. جامعة عمر المختار، البيضاء، ليبيا، ٢٣٢ ص.
Electronic Materials	- Blackboard website - Website of Saudi digital Library
Other Learning Materials	Computer-based programs and professional software

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	▪ Classroom (capacity not more than 40 students). ▪ Microbiology Lab (capacity not more than 20 students).
Technology Resources (AV, data show, Smart Board, software, etc.)	▪ Data Show projectors, smart blackboard.
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	▪ Algae fresh samples ▪ Permanent slides. ▪ Fresh /marine water

Item	Resources

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of teaching and assessment	Students	Indirect
Quality of learning resources	Peer Reviewer Students	Direct Indirect
Extent of achieving the course learning outcomes	Peer Reviewer Students	Direct Indirect

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	**Biology Department**
Reference No.	**Committee number 14 - Academic Year 1442-1443H**
Date	**22\5\2022G – 21\10\1443H**

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