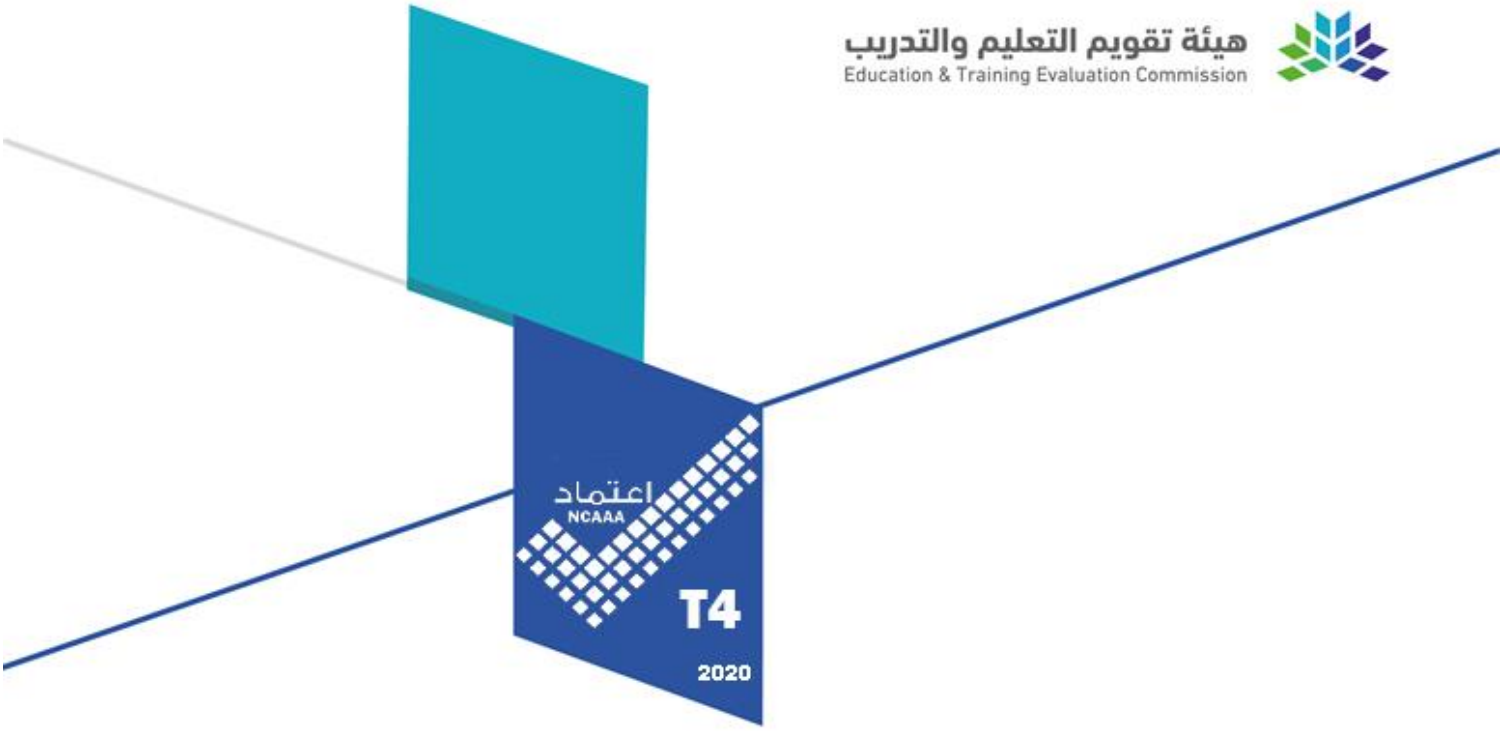
هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission



Course Specifications

Course Title:	**Marine Biology**
Course Code:	**353 ZOO**
Program:	**Bachelor of Biology**
Department:	**Biology Department**
College:	**College of Science**
Institution:	**Jazan University**

Table of Contents

A. Course Identification

1. Credit hours: 3 Hours
2. Course type **a.** University ☐ College ☐ Department ☑ Others ☐ **b.** Required ☑ Elective ☐
3. Level/year at which this course is offered: Level 5 (3rd Year)
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**	---	---
2	**Blended**	---	---
3	**E-learning**	---	---
4	**Distance learning**	52 hrs	%100
5	**Other**	---	---

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	**Lecture**	28 Per Semester
2	**Laboratory/Studio**	28 Per Semester
3	**Tutorial**	-
4	**Others** (specify)	-
	Total	56

B. Course Objectives and Learning Outcomes

1. Course Description:

1) Course Objectives:

Marine life (marine organisms). Marine-Ecosystem. Marine Biodiversity. Economic and ecological importance of marine plants and marine animals

2) Course Contents:

Biology of marine life and organisms (Fauna, Flora, Benthos, plankton, Neikton). Taxonomy, Diversity, Anatomy, Ecology (Divisions of marine environment). Methods of conversation of aquatic organisms. Methods of aquacultures of economic species

3) Practical:

Methods of fields study. Water sampling techniques. Marine organisms (Flora and fauna), Instruments and equipment. Field marks, reserving the data. Methods of analysis of marine flora and fauna using special instruments and apparatus. Statistical analysis. Scientific references. Preparing reports

4) Assessment:

Exams: Essay/Objective, oral, class work, research work, translations
Practical: Identifying samples and slides, drawings.
Quiz 5%
Assignments 5%
Exams 10%
Practical 30%
Final 50%

5) Teaching Methods:

Lectures, photographs, slides, multimedia, web-based learning. Samples, Light microscopes, glassware, chemicals.

6) Text Books:

علم الاحياء البحرية (الطبعة الثانية) ترجمة أ.د.عبد الكريم محمد على خفاجي (1420 هـ). جامعة الملك عبد العزيز.

7) References:

1. Biology, Campbell & Reece, 2005, Pearson Benjamin Cummings.
2. Suniech J.L., Morrissey J. (2005) Introduction to the biology of marine life, Jones and Bartlett Publishers, London.
3. Kennish M.J.(2003) Practical Hand book of marine science. CRC Press, London.

Castro P., Huber M.E. (2007) Marine Biology, California State Polytechnic University,USA.

2. Course Main Objective:

This course aims at giving the student knowledge in the fields:

1) The Principles of Marine Science.
2) Marine Ecosystems and their specific Features.
3) The importance of Marine Ecosystems.
4) Biology of marine life and organisms (Fauna, Flora, Benthos, plankton, Nekton).
5) Taxonomy, Diversity, Anatomy.
6) Ecology (Divisions of marine environment).
7) Coral Reefs
8) Marine Organisms. Fishes, Marine Reptiles, Birds, and Mammals.
9) Methods of aquacultures and conservation of economic species.

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	**Knowledge and Understanding**	
1.1	Recall and Display relevant information related to Marine Biology.	K1
1.2	Define and Explain structures and processes in concept of Marine Biology.	K1
1.3	Understand and Identify different marine organism mechanisms, functions and features.	K2
2	**Skills :**	
2.1	Discuss and Apply theories, principals and relevant aspects in Marine Biology.	S1
2.2	Distinguish between different structures and features related contents of marine biology.	S1
2.3	Carry out experiments and use of lab equipment and techniques.	S3
3	**Values:**	
3.1	Improve self-confidence, leadership and personal values	V1
3.2	Illustrate ability to teamwork, self-expression and caring a responsibility	V3

C. Course Content

No	List of Topics	Contact Hours
1	Introduction to Marine Biology	1st and 2nd
2	Introduction to Maine Environment and current threats	3rd till 5th
3	Sea water	6th
4	Taxonomy	7th
5	Marine Plants	8th and 9th
6	Marine Zoology (Protozoa)	10th
7	Marine Zoology (Porifera)	11th
8	Marine Zoology (Cnidaria)	12th

9	Marine Zoology (Mollusca)	13th and 14th
10	Marine Zoology (Arthropoda)	15th
11	Marine Zoology (Echinodermata)	16th
12	Marine Zoology (many Invertebrate phylums)	17th and 18th
13	Marine Zoology (Cordata)	19th and 20th

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	Recall and Display relevant information related to Marine Biology.	E-Lectures	Quizzes, individual assessment
1.2	Define and Explain structures and processes in concept of Marine Biology.	E-Lectures	Quizzes, Written exam
1.3	Understand and Identify different marine organism mechanisms, functions and features.	E-Lectures	Quizzes, written exam
2.0	**Skills**		
2.1	Discuss and Apply theories, principals and relevant aspects in Marine Biology.	E-Lectures	group work, quizzes assignments
2.2	Distinguish different structures and features related contents of marine biology.	E-Lectures	Assignments Group work
2.3	Carry out experiments and use of lab equipment and techniques.	E-Lectures	Practical exam assignments
3.0	**Values**		
3.1	Improve self-confidence, leadership and personal values	E-Lectures, group work	assignments
3.2	Illustrate ability to teamwork, self-expression and caring a responsibility	E-Lectures	Presentation , assignments

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Theoretical Quizzes	3rd and 9th	**5 %**
2	Theoretical Mid-term exam.	7th	**10 %**
3	Theoretical Assignment	11th	**5 %**
4	Practical Assignment	10th	**10 %**
5	Practical participation in Lectures	13th	**5 %**
6	Final Practical Exam	14th	**15 %**
7	Theoretical Final Exam	16th	**50 %**
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 :

- Each group of students are assigned to a member of staff who will be available for help and academic guidance office hours at specific 2h on daily basis.
- Office hours are displayed outside course coordinator office for students who need extra help and support related to the courses.

Head of Department is available for supporting all students ad guide them for seeking help from correct staff and committees.

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	**علم الاحياء البحرية (الطبعة الثانية) ترجمة أ.د. عبد الكريم محمد على خفاجي (1420 هـ). جامعة الملك عبد العزيز.**
Essential References Materials	1. Biology, Campbell & Reece, 2005, Pearson Benjamin Cummings. 2. Suniech J.L., Morrissey J. (2005) Introduction to the biology of marine life, Jones and Bartlett Publishers, London. 3. Kennish M.J.(2003) Practical Hand book of marine science. CRC Press, London. Castro P., Huber M.E. (2007) Marine Biology, California State Polytechnic University,USA
Electronic Materials	**http://marinebio.org/** **http://www.sciencedaily.com/news/plants_animals/marine_biology/** **http://www.amnh.org/explore/ology/marinebiology**
Other Learning Materials	• Collage Library has several books related to Marine Biology. Other courses in the department are integrated with marine biology course which give extra detail about this subject.

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• A Lecture room for group of 60 students which has a teaching board and projector and internet access. • A Laboratory for group of 25 students which has all required equipment such as basic microscope, slides etc.
Technology Resources (AV, data show, Smart Board, software, etc.)	• A data show with smart Board. • Access to internet.
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	• Light microscopes, glassware, marine organisms for anatomy (all anatomy equipment)

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of Teaching	Targeted Students + Head of Department (HOD)	• Student questionnaires. • Assessment of course results and report by HOD. • A report from Quality committee member in the department An assessment report from assessment and evaluation Unit in the collage.
Improvement of Teaching	Targeted Students + Head of Department (HOD)	• Student questionnaires. • Assessment of course report by HOD. • A report from Quality committee member in the department An assessment report from assessment and evaluation Unit in the collage.
A plan of teaching improvement	Targeted Students + Head of Department (HOD)	• Student questionnaires. • Assessment of course report by HOD. • A report from Quality committee member in the department An assessment report from assessment and evaluation Unit in the collage.

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	