

**Course Title:** Marine Biology

Course Code: ENW 216

**Program:** Environmental Protection Technology Diploma

Department: --

College: Applied College in Al-Aarda

Institution: Jazan University, Jazan

Version: 1st

**Last Revision Date:** 



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### A. General information about the course:

#### 1. Course Identification

1.	Credit	hours:	(2	)

2.	Cour	se	tyj	pe

<u>A.</u>	□University	☐ College	Program	□Track	□Others

B. ⊠ Required □Elective

### 3. Level/year at which this course is offered: (Level 3/ Year 2)

### 4. Course general Description:

This course explains all aspects of Marine Biology such as marine organisms (Fauna, Flora, Benthos, plankton, Neikton), marine ecosystem, organisms Taxonomy, Biodiversity, economic and ecological importance of marine plants and marine animals.

### **5. Pre-requirements for this course** (if any):

111ENW-2

### **6.** Co-requisites for this course (if any):

NA

### 7. Course Main Objective(s):

Upon completion of the course, it is expected that the student will have acquired familiarity with the following concepts:

- 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

### **2. Teaching mode** (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	30	100%



No	Mode of Instruction	Contact Hours	Percentage
2	E-learning		
	Hybrid		
3	<ul> <li>Traditional classroom</li> </ul>		
	• E-learning		
4	Distance learning		

# 3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	30
2.	Laboratory/Studio	
3.	Field	
4.	Tutorial	
5.	Others (specify)	
Total		30

# **B.** Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of PLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and under	rstanding		
1.1	Define principles, concepts, and aspects related to Marine Biology.	K 1	Lectures ,class assignments	Quizzes, Written exams individual assessment
1.2	identify different mechanisms, functions, practices and aspects related to Marine Biology	K 2		Quizzes, Written exams
2.0	Skills			
2.1	Apply the biological theories, principles and processes relevant to Marine Biology	S 1	Lectures ,class assignments	group work, quizzes, assignments, Written exams



Code	Course Learning Outcomes	Code of PLOs aligned with program	Teaching Strategies	Assessment Methods	
2.2	Differentiate between different methods related to lab experiments	S2	Lectures ,class assignments	Group work, Lab assignments	
3.0	Values, autonomy, and responsibility				
3.1	Work with multi- disciplinary teams to communicate effectively both in written and oral forms.	V1	Discussions ,Lectures ,Group presentations	group work, quizzes, assignments, Written exams	

# C. Course Content

No	List of Topics	Contact Hours
1.	<ul> <li>Introduction to Marine Biology</li> <li>Marine Ecosystems.</li> </ul> 1st Chapter	2
2.	<ul> <li>Marine Ecosystems (Mangrove, Coral Reefs etc.)</li> <li>Water and its sources - types of water</li> </ul> 2 <sup>nd</sup> Chapter,	2
3	<ul> <li>Taxonomy - Scientific Nomenclature</li> <li>Marine Plants</li> <li>3<sup>rd</sup> Chapter</li> </ul>	2
4	<ul> <li>Kingdom of Animal (Protozoa)</li> <li>Kingdom of Animal (Porifera)</li> </ul> 4 <sup>th</sup> Chapter	3
5	<ul> <li>Kingdom of Animal (Cnidaria)</li> <li>Kingdom of Animal (Mollusca 1)</li> </ul>	3
6	<ul> <li>Kingdom of Animal (Mollusca 2)</li> <li>Kingdom of Animal (Arthropoda 1)</li> <li>6th Chapter</li> </ul>	3
7	<ul> <li>Kingdom of Animal ( Arthropoda 2 )</li> <li>Kingdom of Animal ( Echinodermata 1 )</li> <li>7<sup>th</sup> Chapter</li> </ul>	3



8	<ul> <li>Kingdom of Animal ( Echinodermata 2)</li> <li>8th Chapter</li> </ul>	3
9	Kingdom of Animal (Many Invertebrates 1 )  9th Chapter, 2 Lectures, 9th week	3
10	Kingdom of Animal (Many Invertebrates 2 )  10th Chapter	3
11	Kingdom of Animal (Chordate )  11th Chapter	3
	Total	22

## **D. Students Assessment Activities**

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.1	Quizzes	Continuous	10 %
2. 2	Mid-term exam.	9 <sup>h</sup> -10 <sup>th</sup> week	20 %
3.3	Assignments	Continuous	10 %
4	Final Exam	16 <sup>th</sup> week	60 %

<sup>\*</sup>Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay etc.).

## E. Learning Resources and Facilities

## 1. References and Learning Resources

Essential References	علم الاحياء البحرية (الطبعة الثانية) ترجمة أ.د. عبد الكريم محمد على خفاجي . ( ١٤٢٠ هـ). جامعة الملك عبد العزيز
Supportive References	<ol> <li>Biology, Campbell &amp; Reece, 2005, Pearson Benjamin Cummings.</li> <li>Suniech J.L., Morrissey J. (2005) Introduction to the biology of marine life, Jones and Bartlett Publishers, London.</li> <li>Kennish M.J.(2003) Practical Hand book of marine science. CRC Press, London.</li> <li>Castro P., Huber M.E. (2007) Marine Biology, California State Polytechnic University,USA</li> </ol>
Electronic Materials	<ul> <li>http://marinebio.org/</li> <li>http://www.sciencedaily.com/news/plants animals/marine biology/</li> <li>http://www.amnh.org/explore/ology/marinebiology</li> </ul>
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. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	<ul> <li>A Lecture room for group of 60 students, which has a teaching board and projector and internet access.</li> </ul>
Technology equipment (projector, smart board, software)	<ul><li>A data show with smart Board.</li><li>Access to internet.</li></ul>
Other equipment (depending on the nature of the specialty)	

# F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Targeted Students + Head of Department (HOD)	<ul> <li>Student questionnaires.</li> <li>Assessment of course results and report by HOD.</li> <li>A report from Quality committee member in the department</li></ul>
Effectiveness of students assessment	Targeted Students + Head of Department (HOD)	<ul> <li>Student questionnaires.</li> <li>Assessment of course report by HOD.</li> <li>A report from Quality committee member in the department         An assessment report from assessment and evaluation Unit in the collage.     </li> </ul>
Quality of learning resources	Targeted Students + Head of Department (HOD)	<ul> <li>Student questionnaires.</li> <li>Assessment of course report by HOD.</li> <li>A report from Quality committee member in the department</li> </ul>





Assessment Areas/Issues	Assessor	Assessment Methods
		An assessment report from assessment and evaluation Unit in the collage.
The extent to which CLOs have been achieved	Targeted Students + Head of Department (HOD)	<ul> <li>Student questionnaires.</li> <li>Assessment of course results and report by HOD.</li> <li>A report from Quality committee member in the department         An assessment report from assessment and evaluation Unit in the collage.     </li> </ul>

Assessors (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

# **G.** Specification Approval

COUNCIL /COMMITTEE	BOARD OF DEPARTMENT
REFERENCE NO.	
DATE	03\06\2024

