



Course Title: Marine Biology

Course Code: ZOOL 353

Program: Bachelor

Department: Biology

College: Sciences

**Institution: Jazan University** 

Version: 1

Last Revision Date: 1/3/2023



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#### A. General information about the course:

Co	Course Identification					
1.	Credit hours:	3 Hours				
2.	Course type					
a.	University □	College □	Dep	artment⊠	Track□	Others□
b.	Required	Elective□				
	3. Level/year at which this course is offered: Level 8 (3rd Year)					
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): Chordates ZOOL254 & Invertebrates ZOOL251

- 6. Co- requirements for this course (if any):
  None
- 7. Course Main Objective(s)

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

#### 1. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom	33	100 %
2.	E-learning		
3.	<ul><li>Hybrid</li><li>Traditional classroom</li><li>E-learning</li></ul>		
4.	Distance learning		





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

No	Activity	Contact Hours
1.	Lectures	22 Per Semester
2.	Laboratory/Studio	22 Per Semester
3.	Field	
4.	Tutorial	
5.	Others (specify)	
	Total	44

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

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Define all principles, concepts, aspects related to Marine Biology.	K1.1	Traditional classroom	Quizzes, individual assessment
1.2	Differentiate (Compare) between different mechanisms, functions, practices and aspects related to Marine Biology	K2.1	Traditional classroom	Quizzes, Written exam
2.0	Skills			
2.1	Debate the biological theories, principles and processes relevant to Marine Biology	S1.1	Traditional classroom	group work, quizzes assignments
2.2	Apply the theoretical knowledge and understanding lab experiments	S1.2	Traditional classroom	Assignments Group work
3.0	Values, autonomy, and responsib	ility		
3.1	Manage teamwork effectively by integrating different skills and abilities of team members.	V3.1	E-Lectures, group work	Presentation Practical experiments assignments

#### C. Course Content

No	List of Topics	Contact Hours
1.	<ul><li>Introduction to Marine Biology</li><li>Marine Ecosystems.</li></ul>	1 <sup>st</sup> and 2 <sup>nd</sup>





	1st Chapter, 2 Lectures, 1st week	
2.	<ul> <li>Marine Ecosystems (Mangrove, Coral Reefs etc.)</li> <li>Water and its sources - types of water</li> </ul>	3 <sup>rd</sup> and 4 <sup>th</sup>
	2 <sup>nd</sup> Chapter, 2 Lectures, 2 <sup>nd</sup> week	
3	<ul><li>Taxonomy - Scientific Nomenclature</li><li>Marine Plants</li></ul>	5 <sup>th</sup> and 6 <sup>th</sup>
	3 <sup>rd</sup> Chapter, 2 Lectures, 3 <sup>rd</sup> week	
4	<ul><li>Kingdom of Animal (Protozoa)</li><li>Kingdom of Animal (Porifera)</li></ul>	7 <sup>th</sup> and 8 <sup>th</sup>
·	4 <sup>th</sup> Chapter, 2 Lectures, 4 <sup>th</sup> week	7 4.1.4.5
	Kingdom of Animal (Cnidaria )	
5	Kingdom of Animal (Mollusca 1)	9 <sup>th</sup> and 10 <sup>th</sup>
	5 <sup>th</sup> Chapter, 2 Lectures, 5 <sup>th</sup> week	5 4 20
	Kingdom of Animal (Mollusca 2)	
6	Kingdom of Animal ( Arthropoda 1 )	11 <sup>th</sup> and 12 <sup>th</sup>
	6 <sup>th</sup> Chapter, 2 Lectures, 6 <sup>th</sup> week	
	Kingdom of Animal ( Arthropoda 2 )	
7	<ul> <li>Kingdom of Animal ( Echinodermata 1 )</li> </ul>	13 <sup>th</sup> and 14 <sup>th</sup>
	7 <sup>th</sup> Chapter, 2 Lectures, 7 <sup>th</sup> week	
	Kingdom of Animal ( Echinodermata 2)	a=th sasth
8	8 <sup>th</sup> Chapter, 2 Lectures, 8 <sup>th</sup> week	15 <sup>th</sup> and 16 <sup>th</sup>
	Kingdom of Animal (Many Invertebrates 1 )	
9	9 <sup>th</sup> Chapter, 2 Lectures, 9 <sup>th</sup> week	17 <sup>th</sup> and 18 <sup>th</sup>
	Kingdom of Animal (Many Invertebrates 2 )	
10	10 <sup>th</sup> Chapter, 2 Lectures, 10 <sup>th</sup> week	19 <sup>th</sup> and 20 <sup>th</sup>
	Kingdom of Animal (Chordate )	
11	11 <sup>th</sup> Chapter, 2 Lectures,11 <sup>th</sup> week	21 <sup>th</sup> and 22 <sup>th</sup>
	Total	22
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### **D. Students Assessment Activities**

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1	Theoretical Quizzes	3 <sup>rd</sup> week	5 %
2	Theoretical Mid-term exam.	7 <sup>th</sup> week	10 %
3	Theoretical Assignment	8 <sup>th</sup> week	5 %



No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
4	Practical Assignment	9 <sup>th</sup> week	5 %
5	Practical Quiz	5 <sup>th</sup> week	5 %
6	Final Practical Exam	11 <sup>th</sup> week	20 %
7	Theoretical Final Exam	12 <sup>th</sup> week	50 %

<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 (1420 .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	<ul> <li>Collage Library has several books related to Marine Biology.</li> <li>Other courses in the department are integrated with marine biology course which give extra detail about this subject.</li> </ul>

#### 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> <li>A Laboratory for group of 25 students which has all required equipment such as basic microscope, slides etc.</li> </ul>





Items	Resources
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)	• Light microscopes, glassware, marine organisms for anatomy (all anatomy equipment)

## 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> <li>An assessment report from assessment and evaluation Unit in the collage.</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</li> <li>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> <li>An assessment report from assessment and evaluation Unit in the collage.</li> </ul>
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</li> <li>An assessment report from assessment and evaluation Unit in the collage.</li> </ul>

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

## G. Specification Approval Data

COUNCIL /COMMITTEE	BIOLOGY DEPARTMENT BOARD
REFERENCE NO.	BiO2214un
DATE	20/9/2622AD

