

نموذج توصيف مقرر
Course Description Form

Name of College\Faculty :

Sciences

اسم الكلية:

Name of Department:

Biological Sciences – Animal Biology Program

اسم القسم العلمي:

Course Name	Marine Ecology & Conservation البيئة البحرية والمحافظة عليها	اسم المقرر
Course No.	0493 –404	رقم المقرر
No. of Credits	3	عدد الوحدات
Theoretical Hours	2	عدد الساعات النظرية
Practical Hours	3	عدد الساعات العملية
Course topics		مواضيع المقرر

Theoretical

- Marine Environment: **Geo-Phys-Chemical Characteristics**
- Marine Environment: **Patterns of Biodiversity**
- Habitats and Communities (**Intertidal Ecosystems**)
- Habitats and Communities (**Estuary and Marsh Ecosystems**)
- Habitats and Communities (**Tropical Coral Reef Ecosystems**)
- Habitats and Communities (**Nearshore and Open Ocean**)
- Approaches to Marine Conservation: **Resource Harvest and Habitat Protection**
- Approaches to Marine Conservation: **Marine Fisheries**
- Approaches to Marine Conservation: **Marine Endangered Species**
- Approaches to Marine Conservation: **Marine Protected Areas**
- Approaches to Marine Conservation: **Restoration of Marine ecosystems**
- **Ocean Conservation Laws, Agreements & Organizations**

Practical

- Concepts in statistics and scientific writing (data analysis: computing + graphing).
- Physical & chemical nature of the marine environment I: properties of seawater: Density, Temperature, Salinity and correlation between them; Salinity effects on the metabolism of marine crabs.
- Physical & chemical nature of the marine environment II: Temperature effects on the metabolism of marine fish.
- Foundation of ecosystems I: Nutrients and primary production.
- Foundation of ecosystems II: Plankton biomass and abundance.
- Concepts in field studies: Qualitative and quantitative sampling.
- Marine environment of Kuwait: Dominant systems, environmental conditions, community organization of exposed and protected beaches.
- Field studies: coastal ecosystems & species diversity I (Rocky shore).
- Field studies: coastal ecosystems & species diversity II (Muddy or Sandy shore).
- Field studies: coastal ecosystems & species diversity II (offshore habitats).
- Techniques used in Marine Conservation.
- Contemporary Issues in Marine Conservation and Management - Discussion Forum.

Text book: (Name, Author , Year , Publisher)

عنوان الكتاب : (الاسم ، المؤلف ، سنة الطبع ، دار النشر)

- *Marine Community Ecology & Conservation* by Mark D. Bertness, John F. Bruno, Brian R. Silliman, John J. Stachowicz. Sinauer Associates, Inc. (Latest edition)
- *Marine Environmental Biology and Conservation* by Daniel w. Beckman. Jones & Bartlett Learning. (Latest Edition)

References: (Name, Author, Year. Publisher)

عنوان المرجع : (الاسم ، المؤلف ، سنة الطبع ، دار النشر)

Prerequisites:

Ecology 0493-306

متطلبات المقرر

Grading	Exams	35	%		الاختبارات
	Quizzes		%		امتحانات قصيرة
	H.W.	5	%		واجبات
	Project (field study)	20	%		مشاريع (دراسة ميدانية)
	Final	40	%		الاختبار النهائي
	100 %				

آلية رصد المقرر

Course objectives					
No.	Course Objectives (Learning Outcomes)	Example(s) of relevant (Topics and activities)	Recommended Level to satisfy the objectives		
			High	Medium	Low
1	Identify the various marine biotopes and describe the complex interrelationships between marine organisms and their abiotic environment.	Composition, distribution & adaptation of fauna; community structure and energy flow within estuaries, salt marshes, mudflats, rocky shores, coral reefs.	✓		
2	Design and conduct controlled experiments with context in relation to physiological ecology and environmental science.	Experiments on effect of salinity and temperature variations on the survival rate/metabolism of marine species.	✓		
3	Evaluate the impacts of environmental, ecological and anthropogenic factors on marine and coastal faunal species.	Threatened and endangered species; causes of marine species decline; anthropogenic threats to the marine environment.	✓		
4	Demonstrate a detailed knowledge of methods for collecting and analyzing marine ecological data.	Concepts in field studies; qualitative and quantitative sampling and data interpretation.	✓		
5	Explain the core principles of Marine Protected Areas and their intended ecological, social and economic benefits.	Criteria of MPA's (IUCN category), ecological restoration/rehabilitation and sustainability of marine environmental resources.	✓		
Fields					
Skills					
Coordinator (Name and Rank) :		Amani S. Alzaidan (Assist. Prof.)			
Signature and stamp :		د. أماني سالم الزيدان Dr. Amani S. Al-Zaidan كلية العلوم - قسم البيولوجية Department of Biological Sciences			
Date:		09\ 11 \ 2025			