

**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 Biology<br>بيولوجيا بحرية | اسم المقرر          |
| Course No.        | 0493 –314                        | 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**

- The Ocean as a Habitat
- Physical and Chemical Oceanography
- Patterns of Associations
- Marine Microbes, Macroalgae and Plants
- Microbial Heterotrophs and Invertebrates
- Marine Vertebrates I: Fishes and Reptiles
- Marine Vertebrates II: Seabirds and Marine Mammals
- Marine Ecosystems: Estuaries, Coastal Seas, The Coral Reef Ecosystem
- The Open Sea, The Deep-Sea Floor, Polar Seas
- Harvesting Living Marine Resources

**Practical**

1. Laboratory & Field Safety
2. The Microbial World: Prokaryotes, Protozoans
3. Phytoplankton: types, collection, preservation and identification
4. Zooplankton: types, collection, preservation and identification
5. Macroalgae (Seaweed): types, collection and methods of preservation
6. **MIDTERM EXAMINATION**

7. Marine Invertebrate Classification & Identification (I): Porifera, Cnidaria, Platyhelminthes, Nematode, Echinoderms
8. Marine Invertebrate Classification & Identification (II): molluscs, Crustaceans
9. **QUIZ & Protochordates**
10. Fish Morphology & Diversity (I): (Cartilaginous & Bony): Anatomy
11. Fish Morphology & Diversity (II) : (Cartilaginous & Bony): Morphology
12. Marine Reptiles, Birds and mammals
13. **FINAL EXAMINATION**

| Text book: (Name, Author , Year , Publisher)                                                                                        | عنوان الكتاب : ( الاسم ، المؤلف ، سنة الطبع ، دار النشر ) |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| - <b>Introduction to the Biology of Marine Life</b> by John F. Morrissey and James L. Sumich. Latest ED. Jones & Bartlett Learning. |                                                           |
| References: (Name, Author, Year. Publisher)                                                                                         | عنوان المرجع : ( الاسم ، المؤلف ، سنة الطبع ، دار النشر ) |
|                                                                                                                                     |                                                           |

| Prerequisites:                                                        |                       |    |   |  | متطلبات المقرر         |
|-----------------------------------------------------------------------|-----------------------|----|---|--|------------------------|
| Animal Diversity (I) 0493-205 + Animal Diversity (II) 0493-206 or 201 |                       |    |   |  |                        |
| Grading                                                               | Exams                 | 35 | % |  | الاختبارات             |
|                                                                       | Quizzes               | 10 | % |  | امتحانات قصيرة         |
|                                                                       | H.W.                  | 5  | % |  | واجبات                 |
|                                                                       | Project (field study) | 10 | % |  | 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 major biogeographic realms of the world's oceans.                           | Spatial Distribution of marine organisms within oceans & seas. |                                             | ✓      |     |
| 2                 | Describe form, function, and adaptations of representative marine organisms to learn the | Camouflage in invertebrates; Echolocation in marine mammals.   | ✓                                           |        |     |

|                               |                                                                                                                                     |                                                                                                                                                                      |   |  |  |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|--|--|
|                               | secrets of their survival and success.                                                                                              |                                                                                                                                                                      |   |  |  |
| 3                             | Recognize the many marine habitat types, their typical organisms and mode of adaptation found in each.                              | Estuaries, coral reefs, deep sea, polar seas and characteristics of fauna inhabiting them.                                                                           | ✓ |  |  |
| 4                             | Distinguish between the interrelationship and energy flow among organisms of the sea.                                               | Competition, predation, parasitism, mutualism, nutrient cycling, and energy flow.                                                                                    | ✓ |  |  |
| 5                             | Identify the impacts of man on the biological resources of the oceans and biodiversity, and understand the need for conservation.   | Climate change, over-exploitation of resources, pollution (chemical, plastic, noise etc), habitat destruction/ coastal development, invasive species, marine debris. | ✓ |  |  |
| Fields                        |                                                                                                                                     |                                                                                                                                                                      |   |  |  |
| Skills                        |                                                                                                                                     |                                                                                                                                                                      |   |  |  |
| Coordinator (Name and Rank) : | Amani S. Alzaidan (Assist. Prof.)                                                                                                   |                                                                                                                                                                      |   |  |  |
| Signature and stamp :         | <p>د. أماني س. الزيدان<br/>Dr. Amani S. Al-Zaidan<br/>كلية العلوم - قسم العلوم البيولوجية<br/>Department of Biological Sciences</p> |                                                                                                                                                                      |   |  |  |
| Date:                         | 09\ 11 \ 2025                                                                                                                       |                                                                                                                                                                      |   |  |  |