



Course Specification

— (Bachelor)

Course Title: Arab Gulf and Red Sea Ecosystems

Course Code: EVS 1248

Program: Bachelor of Science in Environmental Science

Department: Biology

College: Science

Institution: Imam Muhammed Ibn Saud Islamic University

Version: 1

Last Revision Date: -



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A. General information about the course:

| 1. Co | 1. Course Identification | | | | |
|-------|--------------------------|-------------------|-------------------|-----------------------------|-------------------|
| 1. C | redit hours: 2 (I | ecture 2 + 0 + 0 |) | | |
| | | | | | |
| 2. C | ourse type | | | | |
| Α. | □University | □College | □ Department | □Track | Others |
| В. | ⊠ Required | | ☐ Elect | tive | |
| 3. Le | evel/year at wh | ich this course i | s offered: (Leve | el 8 / 4 th Year | r) |
| 4. C | ourse General I | Description: | | | |
| This | course covers | the basics of ma | arine ecology an | d its systems | and physical and |
| cher | mical properties | focusing on the | Ecologies of the | e Arabian Gulf | and Red Sea, and |
| iden | itifying their Ma | rine biology and | wealth, as well | as the challeng | ges they face and |
| the | impact of pol | lution on them | n, and Compre | hend the din | nensions of the |

sustainability challenge for the Arabian Gulf and Red Sea Locally and globally.

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

EVS 1110 **EVS 1114**

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

None

7. Course Main Objective(s):

The course intends to:

- Describe the Ecology of the Arabian Gulf and Red Sea.
- Discuss The environmental, cultural, and economic importance of the Arabian Gulf and Red Sea.
- Analyze the marine eco-systems in the Arabian Gulf and Red Sea, and their importance and the chemical and physical properties of them.
- Evaluate how human activity impacts on the eco-systems of Arabian Gulf and Red Sea.
- Clarify the dimensions of the sustainability challenge.





2. Teaching mode (mark all that apply)

| No | Mode of Instruction | Contact Hours | Percentage |
|----|---|---------------|------------|
| 1 | Traditional classroom | ٧ | 100% |
| 2 | E-learning | - | - |
| | Hybrid | | |
| 3 | Traditional classroom | - | - |
| | 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 CLOs aligned with program | Teaching Strategies | Assessment Methods |
|------|---|--|-----------------------------------|--|
| 1.0 | Knowledge and understanding | | | |
| 1.1 | Describe the Ecology of the Arabian Gulf and Red Sea. | K1-K2 | -Lectures -Class participation | -Written exams -Class participation -Assessment of assigned work |
| 1.2 | Discuss The environmental, cultural, and economic importance of the Arabian Gulf and Red Sea. | К2 | -Lectures -Class participation | -Written exams -Class participation -Assessment of assigned work |



| Code | Course Learning Outcomes Clarify the dimensions of the sustainability challenge. | Code of CLOs aligned with program K3-K4 | Teaching Strategies -Lectures -Class participation | -Written exams -Class participation -Assessment of assigned work |
|------|---|---|---|--|
| 2.0 | Skills | | | |
| 2.1 | Analyze the marine ecosystems in the Arabian Gulf and Red Sea, and their importance and the chemical and physical properties of them. | S2-S4 | -Lectures -Classroom discussions -Cooperative education | -Classroom participation -Presentations - Written exams |
| 2.2 | Evaluate how human activity impacts on the eco-systems of Arabian Gulf and Red Sea. | S1-S3 | -Lectures -Classroom discussions -Cooperative education | Classroom participation -Presentations -Assignments -written exams |
| 3.0 | Values, autonomy, and responsi | bility | | |
| 3.1 | Participate in work and communicate effectively in groups. | V1-V2 | Lectures -Classroom discussions -Research | -Classroom participation -Presentations |
| 3.2 | Adhere to assigned tasks with responsibility. | V3-V4 | -Lectures -Classroom discussions | -Classroom participation -Presentations |



C. Course Content

| No | List of Topics (lectures) | Contact Hours |
|-----|--|---------------|
| 1. | Introduction, Syllabus. An introductory preface to the geography of the Arabian Gulf and Red | 4 |
| 1. | Sea and their general features. | 7 |
| 2. | Ecologies of the Arabian Gulf and the Red Sea. | 4 |
| 3. | Marine biology in the Arabian Gulf and the Red Sea. | 2 |
| 4. | Wealth of the Arabian Gulf and the Red Sea. | 2 |
| 5. | Pressures on the beach and marine environments in the Arabian Gulf and Red Sea. | 2 |
| 6. | Analyze the marine ecology of the Arabian Gulf and the Red Sea and the impact of pollutants thereon. | 4 |
| 7. | Coral Bleaching, Coral Diseases, Harmful Algal Blooms (HABs) | 2 |
| 8. | Coastal Development. | 4 |
| 9. | Coral Reef Management in the Arabian Gulf and the Red Sea. | 2 |
| 10. | Comprehend the dimensions of the sustainability challenge for the Arabian Gulf and Red Sea Locally and globally. | 4 |
| | Total | 30 |

D. Students Assessment Activities

| No | Assessment Activities * | Assessment timing (in week no) | Percentage of Total Assessment Score |
|----|--|--------------------------------------|--------------------------------------|
| 1. | Midterm 1 | Around 4th - | 20% |
| | | 5th week | |
| 2. | Midterm 2 | Around 7th - | 20% |
| | | 8th week | |
| 3. | Quizzes, Participation, and Attendance | During the | 20% |
| J. | | semester | |
| 6. | Final Exam | 16th week | 40% |
| | Total | | 100% |

^{*} 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 | -Conservation Biology for all. 2010. edited by Sodhi, N. S, and P. R. Ehrlich. Oxford University Press. - Vaughan, Grace O., Noura Al-Mansoori, and John A. Burt. "The arabian gulf." World seas: An environmental evaluation. Academic Press, 2019. 1-23. - Price, A. R. G., Mohiuddin Munawar, and Nuzrat Yar Khan. The Gulf ecosystem health and sustainability. Michigan State University Press, 2002. -Tesfamichael, Dawit. Assessment of the Red Sea ecosystem with emphasis on fisheries. Diss. University of British Columbia, 2012. |
|--------------------------|---|
| Supportive References | - Short, Frederick T. World atlas of seagrasses. Univ of California Press, 2003. |
| Electronic Materials | • Saudi Digital Library |
| Other Learning Materials | |

2. Required Facilities and equipment

| Items | Resources |
|---|---------------------------------|
| facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.) | Classroom and laboratories |
| Technology equipment (Projector, smart board, software) | Projector, smartboard |
| Other equipment (Depending on the nature of the speciality) | Environment-related instruments |





F. Assessment of Course Quality

| Assessment Areas/Issues | Assessor | Assessment Methods |
|---|----------------|--------------------|
| Effectiveness of teaching | Students | Direct |
| Effectiveness of students assessment | Program Leader | Direct |
| Quality of learning resources | Peer Reviewer | Indirect |
| The extent to which CLOs have been achieved | Program Leader | Direct |
| Other | | |

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

G. Specification Approval

| COUNCIL/COMMITTEE | Head of Biology Department |
|-------------------|----------------------------|
| REFERENCE NO. | |
| DATE | |

