



# Course Specification

## (Bachelor)

**Course Title:** Biodiversity

**Course Code:** EVS 1230

**Program:** Bachelor of Science in Environmental Science

**Department:** Biology

**College:** Science

**Institution:** Imam Mohammed Ibn Saud Islamic University

**Version:** 1

**Last Revision Date:** -



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## A. General information about the course:

### 1. Course Identification

**1. Credit hours: 3 (Lecture 2 + Lab 2).**

#### 2. Course type

A. ☐ University ☐ College ☒ Department ☐ Track Others

B. ☒ Required ☐ Elective

**3. Level/year at which this course is offered: ( Level 3 / 2<sup>nd</sup> Year)**

#### 4. Course General Description:

This course deals with biodiversity; and the definition of species; Measuring biodiversity (Units of biodiversity, Levels of biodiversity, Biodiversity indices) Importance of biodiversity in Saudi Arabia (values of biodiversity); Threats to biodiversity; Impacts of biodiversity loss; Extinction; Biodiversity hotspots; Conservation of biodiversity (protected areas in KSA and Arab countries).

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

EVS 1110                      EVS 1112                      EVS 1114

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

None

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

Identify and describe the fundamentals concepts of biodiversity. - Discuss the different categories of biological diversity. - Distinguish levels of biodiversity in ecosystems. - Identify the main factors that threaten biodiversity. - Describe threats, management, and conservation of biodiversity.

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

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	√	100%
2	E-learning	-	-
3	Hybrid <ul style="list-style-type: none"> <li>Traditional classroom</li> <li>E-learning</li> </ul>	-	-
4	Distance learning	-	-

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

No	Activity	Contact Hours
1.	Lectures	30
2.	Laboratory/Studio	30
3.	Field	0
4.	Tutorial	0
5.	Others (specify)	0
Total		60

## 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 basic concept of biodiversity.	K1	Interactive lecture. Discussion and dialogue.	Written tests. Oral tests.
1.2	Recognize the importance of biodiversity.	K2	Collaborative learning.	Classroom assignments. Home assignments.
2.0	Skills			
1.2	Use computers and internet to explain	S1	Find the collective	Participation through class



Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
	the threats that biodiversity confronts.		Reciprocal teaching	work and homework.
2.2	Analyze scientific biodiversity management strategies.	S2	Encourage Students to communicate their biology thinking to ask and answer questions when they arise.	Quizzes, midterm exams, project presentations and final exam
2.3	Evaluate of biodiversity in Saudi Arabia	S3	Collective research project and writing reports and presenting its display.	Quizzes, midterm exam and final exam.
3.0	Values, autonomy, and responsibility			
3.1	Demonstrate the ability to work independently and cooperate with a team.	V1	Collaborative learning.	Organized observation.
3.2	Participate in discussion of scientific issues and present data through oral presentation or written format	V2	Collective research project and writing reports and presenting its display.	Assigning students to conduct research using the internet and modern technology.
3.3	Adhere to the relevant ethical regulations	V3	Collaborative learning.	Organized observation.



### C. Course Content

No	List of Topics	Contact Hours
1.	The basic concept of biodiversity	4
2.	Historical brief of biodiversity	4
3.	Biodiversity at different levels of ecosystems	4
4.	Importance of biodiversity	2
5.	Factors affecting biodiversity	2
6.	Biodiversity degradation	3
7.	Different environments and biodiversity	3
8.	Biodiversity in the Kingdom of Saudi Arabia	2
9.	Species Extinction, endangered species, causes of species extinctions	2
10.	Biodiversity conservation strategies– general methods protected areas (local law - regional conventions – international conventions) .	4
Total		30

### D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Midterm exam 1	Around 6 <sup>th</sup> - 7 <sup>th</sup> week	15%
2.	Midterm exam 2	Around 11 <sup>th</sup> - 12 <sup>th</sup> week	15%
3.	Quizzes, Attendance, Participation, Assignments, Data search	All the semester	10%
4.	Final Lab exam	15 <sup>th</sup> week	20%
4.	Final Exam.	16 <sup>th</sup> 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	<p>1. Science for Environment Policy (2015). Ecosystem Services and the Environment. In-depth Report 11 produced for the European Commission, DG Environment by the Science Communication Unit, UWE, Bristol.</p> <p>2. European Commission (2013). Mapping and Assessment of Ecosystems and their Services. An analytical framework for ecosystem assessments under Action 5 of the EU Biodiversity Strategy to 2020. Technical Report – Discussion paper</p> <p>3. European Commission (2014). Mapping and Assessment of Ecosystems and their Services. Indicators for ecosystem assessments under Action 5 of the EU Biodiversity strategy to 2020. Technical Report - Discussion paper</p>
Supportive References	<p>1. Maczulak, A. (2010). Biodiversity: Conserving Endangered Species. ISBN-10: 0-8160-7197-7.</p> <p>2. Van Dyke, F. (2008). Conservation Biology: Foundations, Concepts, Applications. 2nd Edition. Springer. ISBN: 978-1-4020-6890-4.</p> <p>3. Magurran, A. E. (2004). Measuring Biological Diversity. Blackwell Publishing. ISBN-13: 978-0-632-05633-0</p> <p>4. Mora et al. (2011). How Many Species Are There on Earth and in the Ocean? PLoS Biology, 9, e1001127.</p>
Electronic Materials	<p><a href="http://archive.wri.org/biodiv/biolinks.html">http://archive.wri.org/biodiv/biolinks.html</a></p> <p><a href="http://www.cbd.int/">http://www.cbd.int/</a></p> <p><a href="http://www.iucn.org/">http://www.iucn.org/</a></p> <p><a href="http://www.iucnredlist.org/">http://www.iucnredlist.org/</a></p> <p><a href="http://www.conservation.org/where/priority_areas/hotspots/Pages/hotspots_main.aspx">http://www.conservation.org/where/priority_areas/hotspots/Pages/hotspots_main.aspx</a></p> <p><a href="http://www.edgeofexistence.org/index.php">http://www.edgeofexistence.org/index.php</a></p>
Other Learning Materials	Videos, slides and presentations that are available with the instructor.



## 2. Required Facilities and equipment

Items	Resources
<b>facilities</b> (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classrooms
<b>Technology equipment</b> (projector, smart board, software)	Projector and Smartboard
<b>Other equipment</b> (depending on the nature of the specialty)	Biodiversity -related instruments

## F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Direct
Effectiveness of Student 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

<b>COUNCIL /COMMITTEE</b>	Head of Biology Department
<b>REFERENCE NO.</b>	
<b>DATE</b>	

