هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

2023
TP-153

Course Specification
(Bachelor)

Course Title :	**Ecology and Biodiversity**
Course Code:	**2052103-2**
Program:	**Bachelor in Biotechnology**
Department:	**Biotechnology Department**
College:	**College of Science**
Institution:	**Taif University**
Version:	*Course Specification Version Number*
Last Revision Date:	*Pick Revision Date.*

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A. General information about the course:

1. Course Identification

1. Credit hours:					
2(2 lecture)					
2. Course type					
A.	☐ University	☐ College	☒ Department	☐ Track	☐ Others
B.	☒ Required		☐ Elective		
3. Level/year at which this course is offered: (4th Level / 2nd Year)					
4. Course general Description:					
This course introduces a brief on biodiversity in living organisms including animals and plants. It will also cover biomes, community and populations, and food chains, and the molecular tools of biodiversity. It also covers ecology and biodiversity in Saudi Arabia, protected areas in Saudi Arabia and their diversity, human impact on biodiversity including extinction risk, climate change, species invasion, and acid rain.					
5. Pre-requirements for this course (if any)**:**					
General Biology, 201104-4					
6. Co-requirements for this course (if any)**:**					
NONE					
7. Course Main Objective(s):					
This course covers the main concepts of biodiversity, ecosystems, and molecular tools of biodiversity. It also introduces students to the biodiversity and ecology of Saudi Arabia as well as the human impact on biodiversity.					

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	30	100%
2	E-learning		
3	Hybrid • 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	**Write the common terminology related to Ecology and Biodiversity**	**K.1**	**Lecture**	**Written exam**
1.2	**Describe and estimate the biodiversity among various life domains**	**K.1**	**Lecture, Project**	**Written exam, report**
1.3	**Recognize ecosystems and conservation biology**	**K.4**	**Lecture**	**Written exam**
2.0	**Skills**			
2.1	**.....**	-	-	-
3.0	**Values, autonomy, and responsibility**			
3.1	Adopt academic and professional morals	V1	**Group Discussion**	**Report**

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction to biodiversity, concepts, importance, types, applications	2
2.	Biodiversity in plants	2
3.	Biodiversity in animals	4
3.	Biomes	2
4.	Community and populations	2
5.	Food chains	2
6.	Molecular tools in Biodiversity	4
7.	Ecology and Biodiversity in Saudi Arabia; biomes, diversity	4
8	Protected areas in Saudi Arabia (diversity in protected areas)	4
9	Human impact on biodiversity; extinction risk, climate change, species invasion, and acid rain	4
Total		30

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Written Exam (Midterm exams)	7	20 %
2.	Written Exam (Periodical exams)	9	20 %
3.	Report	11	10 %
4.	Final Exam (Final exam)	15	50 %

*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	
Supportive References	1-Verma, P. S. Environmental biology: principles of ecology. 1st Ed. S. Chand /2006 2-Biodiversity: An Introduction, 2nd Edition, ISBN-13: 978-1405118576, Kevin J. aston (Author), John I. Spicer (Author), 2004
Electronic Materials	http://environment-ecology.com
Other Learning Materials	

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	1 Classroom (60 seats), 1 laboratory (20 seats)
Technology equipment (projector, smart board, software)	**projector, smart board**
Other equipment (depending on the nature of the specialty)	

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Student	Indirect (surveys)
Effectiveness of Students assessment	Students, Peer Reviewer	Indirect, Direct
Quality of learning resources	Students	Indirect (surveys)
The extent to which CLOs have been achieved		
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	**DEPARTMENT COUNCIL**
REFERENCE NO.	**6**
DATE	**5/11/2023**

قسم التقنية الحيوية بكلية العلوم
Biotechnology Department
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