



Course Specification

— (Bachelor)

Course Title: Ecology and Sustainable Development

Course Code: 1103200

Program: : Faculty requirement for all science college programs

Department: Biological Sciences

College: Science

Institution: Northern Border University

Version: 3rd Version

Last Revision Date: 30 /1/ 2024

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A. General information about the course:

1. Course Identification

1. Credit hours: (2+0)

2. Course type

A. ☐ University ☒ College ☐ Department ☐ Track ☐ Others
B. ☐ Required ☒ Elective

3. Level/year at which this course is offered: (According to the program)

4. Course general Description:

The course introduces the basic concepts of ecology, Ecosystem and Ecosystems Diversity, its components and types with special focus in Saudi Arabia, Ecosystem Services and the relation between sustainable development and ecology, the effect of human impact on the environment (global warming, environmental pollution and desertification), Indicators of environmental sustainability in Saudi Arabia according to 2030's vision .

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

Non

6. CO-requirements for this course (if any):

Non

7. Course Main Objective(s):

After attending this course, the student should be able to:

Recognize the main concept of ecology, ecosystem diversity, components and Services, the effect of human impact on the environment, the relation between sustainable development and ecology and the Indicators of environmental sustainability in Saudi Arabia according to 2030's vision.

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

Cod e	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Recognize the basic concepts of ecology, Ecosystems diversity and the relation between sustainable development and ecology.	K1	Casting Brainstorming Cooperative learning	Objective exam Discussion Presentations
2.0	Skills			
3.0	Values, autonomy, and responsibility			
3.1	Demonstrate citizenship and coexistence with others to achieve sustainable goals.	V3	Case Study Cooperative learning (in groups). Peer evaluation.	Projects Observation Presentation Reports.

C. Course Content (Theoretical)

No	List of Topics	Contact Hours
1.	The basic concepts of ecology	4
2.	Concept of Ecosystems, its components and Ecosystem diversity, Focus on Saudi Arabia	6
3.	Ecosystem Services and Relation between sustainable development and ecology	6
4.	the effect of human impact on the environment (environmental	8



	pollution, desertification, and global warming)	
5.	Indicators of environmental sustainability in Saudi Arabia according to 2030's vision.	6
Total		30

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Midterm Written Exam	7 th to 9 th	30%
2.	Assignments	During semester	30 %
3.	Final Written Test	16 th , 17 th	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	Kumar, P. & Mina, U. (2021) : Fundamental of ecology and environment by Pathfinder Publication, New Delhi, India .
Supportive References	Tyler, G. Miller, Jr. and Scott E. Spoolman: (2009)Essentials of ecology 5th edition Brooks/Cole, Cengage Learning, Odum, Eugene ;Barrett, Gary W. (2004), Fundamentals of Ecology 5th Edition. - التنمية المستدامة في الوطن العربي بين الواقع والمأمول. سلسلة دراسات يصدرها مركز الإنتاج الإعلامي جامعة الملك عبد العزيز الإصدار الحادي عشر. - التوقعات العالمية للتنوع البيولوجي الإصدار الثالث. الاتفاقية المتعلقة بالتنوع البيولوجي صادرة عن برنامج الأمم المتحدة للبيئة. د. محمد العودات2000. النظام البيئي والتلوث. مدينة الملك عبد العزيز للعلوم - والتقنية. الإدارة العامة للتوعية العلمية والنشر
Electronic Materials	الهيئة العامة للحياة الفطرية https://www.swa.gov.sa/ar/ فلورا المملكة العربية السعودية http://www.plantdiversityofsaudi-arabia.info/Biodiversity-Saudi-Arabia/Web%20pages%20-Arabic/Home-Arabic/index-Arabic..htm
Other Learning Materials	

2. Required Facilities and equipment

Items	Resources
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Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Large, spacious classrooms suitable for seats and comfortable seats for students. -Projectors .
Technology equipment (projector, smart board, software)	Data show unit, laptop computer used for PowerPoint. Blackboard
Other equipment (depending on the nature of the specialty)	library

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Direct
Effectiveness of Students assessment	Faculty	Indirect
Quality of learning resources	Faculty and Student	Indirect
The extent to which CLOs have been achieved	Instructor Student.	Direct Indirect.
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	Biological Sciences
REFERENCE NO.	9TH /1445
DATE	5/2/2024

