

Course Specifications

Course Title:	Introduction to Environmental Sciences
Course Code:	ENS 100
Program:	General College Course
Department:	Environmental Sciences Department
College:	Faculty of Meteorology, Environment and Arid Land Agriculture
Institution:	King Abdulaziz University







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A. Course Identification

1. (Credit hours: 3			
2. C	Course type			
a.	University College x Department x Others			
b.	Required x Elective			
3. I	3. Level/year at which this course is offered: Third level			
4. I	4. Pre-requisites for this course (if any):			
None				
5. Co-requisites for this course (if any):				
	None			

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	2	100 %
2	Blended	-	-
3	E-learning	-	-
4	Distance learning	-	-
5	Other	-	-

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	44
2	Laboratory/Studio	-
3	Tutorial	-
4	Others (specify)	-
	Total	-

B. Course Objectives and Learning Outcomes

1. Course Description

This course focuses on the basics of environmental sciences. It provides an introduction to specialized environmental sciences focusing on environmental pollution of various environmental mediums. It also links the exposure to environmental to pollution to health impact on man and environment. 2. Course Main Objective

By the end of the course the student should be able to:

-Know the basic concepts and terminology of the environment.

-Recognize the atmospheric systems & the biogeochemical cycles of the basic components of the environment.

- Define the environmental pollution & know its types, causes, effect, and ways to reduce it.

- Future of the environment in the Kingdome through the Saudi vision 2030 & the National environment strategy.

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	Knowledge and Understanding	
1.1	List various definitions in environmental sciences	
1.2	Recognize the organization of the ecosystem & its interactions	
1.3	Focus on the causes of environmental pollution & its mitigation	
	strategies	
2	Skills :	
2.1	Understand the major environmental concepts and related	
	terminology	
2.2	Appraise and judge the problems associated with major	
	environmental issues such as climate change, desertification, ozone	
	depletion, overpopulation .etc.	
2.3	Recognize the link between the environmental management derived	
	by the Saudi vision 2030, the national environment strategy, and	
	the acquired knowledge through the program.	
3	Values:	
3.1	Demonstrate independent role and as part of a team.	
3.2	Participate actively in a team.	
3.3	Analyze and discuss results of assignments	

C. Course Content

No	List of Topics	Contact Hours
1	The history of earth formation & The Global efforts to protect the environment led by UNEP	1
2	The definition of the environment, its types and the relation of environmental sciences to other sciences.	1
3	Spheres of earth	1
4	The ecosystems & the flow of energy	1
5	Biogeochemical cycle of elements	1
6	Environmental protection within Islamic teaching	1
7	Environmental pollution (air, water, solid waste, noise, light, oil, and radiation) definition, monitoring, effect, and mitigation strategies	5
8	Environmental awareness	1
9	Environmental issues (climate change, global warming, desertification,	3

	deforestation, ozone depletion, loss of biodiversity, and overpopulation) from both scientific and international cooperation perspectives.	
10	Environmental impact assessment	1
11	Environmental sustainability within the Saudi Vision 2030	1
12	National Environment Strategy; its relation to environmental sciences and the future of employment in both governmental and private sectors.	3
	Total	20

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		
1.1	List various definitions in environmental sciences	 In-class lectures, using data show, with handouts. Class discussion. Using data show to display photos, audio clips and videos from the Internet 	 Short reports. homework assignments Periodic quizzes and the mid-term and final exams
1.2	Recognize the organization of the ecosystem & its interactions		
1.3	Focus on the causes of environmental pollution & its mitigation strategies	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
2.0	Skills		
2.1	Understand the major environmental concepts and related terminology	 In-class assignments Class discussion. 	 Short reports. homework assignments Periodic quizzes and the mid-term and final exams
2.2	Appraise and judge the problems associated with major environmental issues such as climate change, desertification, ozone depletion, overpopulation .etc.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
3.3	Recognize the link between the environmental management derived by the Saudi vision 2030, the national environment strategy, and the acquired knowledge through the program.		
3.0	Values		
3.1		In-class joint	How a student

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
	Demonstrate independent role and as part of a team.	assignments	cooperates with mates in assigned tasks
3.2	Participate actively in a team.	In-class joint assignments	11 11 11 11 11
3.3	Analyze and discuss results of assignments	In-class joint assignments	

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Students are usually assessed via quizzes, homework assignments	3rd, 7th , 13th weeks	15%
2	Term project individual or group projects including a written report and an oral presentation	12th	15%
3	Midterm exam	6th	25%
4	Final exam	TBA	45%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

Office hours 6 h / week

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	Andrew Friedland; Rick Relyea (2019) Environmental Science for the AP® Course 3rd Edition, ISBN-13: 978-1319113292	
Essential References Materials	<u>Vision 2030 Overview - Vision 2030</u> المنهجية والأهداف الاستراتيجية (mewa.gov.sa)	
Electronic Materials	https://www.youtube.com/watch?v=ZPlqscOffLM https://www.youtube.com/watch?v=Htjus7pv_YM https://www.youtube.com/watch?v=ezVEzCmiXM4 http://www.kaheel7.com/ar/index.php/2010-02-02-20-13-13/254-2010-09-10-13-43-55 https://www.youtube.com/watch?v=eqdQehln6F8&list=PLZ8D6B6X2kI0Q1_WI9ASaTGhc6gCxYpsV& https://www.youtube.com/watch?v=P2D-8aNgvNE&list=PLZ8D6B6X2kI0Q1_WI9ASaTGhc6gCxYpsV https://www.youtube.com/watch?v=P2D-8aNgvNE&list=PLZ8D6B6X2kI0Q1_WI9ASaTGhc6gCxYpsV https://www.youtube.com/watch?v=NTkEkaQuZbA&list=PLZ8D6B6X2kI0Q1_WI9ASaTGhc6gCxYpsV https://www.youtube.com/watch?v=NTkEkaQuZbA&list=PLZ8D6B6X2kI0Q1_WI9ASaTGhc6gCxYpsV https://www.youtube.com/watch?v=NTkEkaQuZbA&list=PLZ8D6B6X2kI0Q1_WI9ASaTGhc6gCxYpsV https://www.youtube.com/watch?v=NTkEkaQuZbA&list=PLZ8D6B6X2kI0Q1_WI9ASaTGhc6gCxYpsV https://www.youtube.com/watch?v=Nty_OT_A2s https://www.youtube.com/watch?v=ruMNvYGnRmo https://www.youtube.com/watch?v=etEDMBpeUlw http://researcherslinks.com/current-issues/Huge-Fish-Killing-after-Rain/20/1/1698/html http://researcherslinks.com/current-issues/Huge-fish-Killing-after-Rain/20/1/1698/html	index=7 &index=4 /&index=6 V&index=2

	https://www.youtube.com/watch?v=R_DhmJg7cGg&list=TLPQMDMxMDIwMjAEbxj8Jy294g&index= https://www.youtube.com/watch?v=Wz_9TT6yl50 https://www.youtube.com/watch?v=rSoszbcvNO0	3
	https://www.youtube.com/watch?v=uyhag4bQaCw https://www.youtube.com/watch?v=N0AW6agtrSA	
	https://ksa-climate.com/	
	https://twitter.com/AbdullahK5/status/1307203161967472646	
	https://www.youtube.com/watch?v=Zbg7DfAhqhY	
	https://www.youtube.com/watch?v=X5max7MY0Dk&feature=emb_title	
Other Learning Materials		

2. Facilities Required

Item	Resources	
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Lecture room with max 20 seats.Laboratory with a capacity of not less than 20 seats.	
Technology Resources (AV, data show, Smart Board, software, etc.)	Data show	
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Equipment and illustration tools related to the course topics.	

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course contents covering	Students (direct through meetings, or indirect using the central online questionnaires	Online questionnaire and Students- faculty meetings (advisory committee)
Quality of teaching		Online questionnaire and students- faculty meetings (advisory committee)
Office hours commitment		Online questionnaire and Students- faculty meetings (advisory committee)

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify) Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	END Dept. Council and Faculty Academic Accreditation Committee
Reference No.	
Date	April 26, 2021