

Course Specifications

Course Title:	Noise Pollution
Course Code:	ENS 390
Program:	Environmental Sciences and Technology/ Environmental Health
Department:	Environmental Sciences
College:	Meteorology, Environment & Arid Land Agri.
Institution:	King Abdulaziz University







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A. Course Identification

1. Credit hours:		
2. Course type		
a. University College Department X Others		
b. Required X Elective		
3. Level/year at which this course is offered: 2 nd year		
4. Pre-requisites for this course (if any): ENS 100		
5. Co-requisites for this course (if any):		
NA		

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100
2	Blended		
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	48
2	Laboratory/Studio	48
3	Tutorial	
4	Others (specify)	15
	Total	111

B. Course Objectives and Learning Outcomes

1. Course Description

Noise pollution course focuses on the physics of sound and its behavior, the definition of noise, its sources, health effects, evaluation and control.

2. Course Main Objective

Students will be able to identify, discuss and explain the problem of noise pollution and its impact on the environment and human; and evaluate noise and its exposures in different sets of environment.

3. Course Learning Outcomes

	CLOs	PLOs
1 Kn	owledge and Understanding	
1.1 Def	fine noise, its sources and effects on health.	
1.2 Iden	ntify procedures of hearing conservation program.	

	CLOs	Aligned PLOs
1.3	Describe methods used to control noise.	
2	Skills :	
2.1	Implement calculations of sound levels and noise exposure levels (noise dose).	
2.2	Measure physical parameters of noise and noise exposure levels; by the usage of different sound instruments.	
3	Values:	
3.1	Evaluate levels of noise in community and industrial environments.	
3.2	Prepare and write technical reports of noise measurements.	

C. Course Content

No	List of Topics	Contact Hours	
1	Introduction to physics of sound.		
2	Concept of noise and its effects on health.		
3	Noise levels: Sound pressure levels (calculations and monitoring)		
4	Speech and hearing (human auditory system)		
5	Noise dose.		
6	Standards and regulations.		
7	Hearing Conservation Program.		
8	Noise control.		
	Total		

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	Define noise, its sources and effects on health.	Lecture	Quiz, H.W, exam
1.2	Identify procedures of hearing conservation program.	Lecture, library, research	Quiz, H.W, exam
1.3	Describe methods used to control noise.	Lecture, library, research, Lab	Quiz, H.W, exam
2.0	Skills		
2.1	Implement calculations of sound levelsLectures, group work,Quiz, H.W, examand noise exposure levels (noise dose).gamesQuiz, H.W, exam		Quiz, H.W, exam
2.2	Measure physical parameters of noise and noise exposure levels; by the usage of different sound instruments. Lab training, field measurements Reports		Reports
3.0	Values		
3.1	Evaluate levels of noise in community and industrial environments.Team work lecture, labproject, Reports		Reports
3.2	Prepare and write technical reports of noise measurements.	Lab training	Reports

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	H.W x 8	1,2,3,4,,,14	10
2	Quiz	1,3,5,7,12	5
3	Med exam	8	20
4	Final exam	14	40
5	Group projects	3,7,11	10
6	Lab reports	6,7,,12	15

*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 4h/week

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	Bhatia, S.C., (2007) Noise Pollution and Its Control, Atlantic Publishers & Distributors (P) Ltd. ISBN-10 : 8126900369.	
Essential References Materials	Course handouts and slide contents by the instructor.	
Electronic Materials	Websites with relevant topics (articles, chapters, EBook).	
Other Learning Materials	Multimedia – documentary videos	

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classroom – 30 seat max
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)	Noise pollution lab/environmental health lab

G. Course Quality Evaluation

Evaluation	Evoluators	Evoluation Mathada
Areas/Issues	Evaluators	Evaluation Methods

Evaluation Areas/Issues			Evaluators	Evaluation Methods
Student	Feedback	on	Course evaluation by student	Indirect
Effectivene	ss of Teaching	l	Students- faculty meetings	
Teaching	strategies	by	Departmental council	
instructor		l	discussions	Indirect
		l	Discussions within the group	Indirect
		I	of faculty teaching the course	
Teaching tools	and assessm	ient	Peer reviews	Direct

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	
Reference No.	
Date	April 2021