

LESSON PLAN

NAME OF FACULTY : Harpal Singh Kalra
DISCIPLINE : ME
SEMESTER : 8th
SUBJECT : Sound and Noise Control
LESSON PLAN DURATION : 15 WEEKS (FROM JANUARY , 2018 TO APRIL, 2018)
WORK LOAD (LECTURE/PRACTICAL)PER WEEK (IN HOURS) : 3 LECTURE, 1 Tutorial

WEEK	THEORY	
	Lecture Day	Topic (Including Assignment/Test)
1st	I	Introduction to Sound and Noise Control system and their use in practical life
	II	Overview to entire syllabus
	III	Review of sound propagation theory and terminology: Introduction, sound waves, speed of sound waves
2nd	I	Amplitude and intensity of sound waves, decibels, sound intensity levels
	II	Sound propagation and sound measurement
	III	
3rd	I	Frequency and frequency bands, complex noise patterns and
	II	Acoustics, psycho acoustics, thresh hold of hearing
	III	Loudness, pitch, masking, frequency weighting, types of noises
4th	I	Noise control: administrative control, engineering control
	II	Personal protective devices, employee responsibility, management responsibility
	III	Advantages and disadvantages of different protective devices, Physiology of hearing
5th	I	Hearing conservation, problems of noise pollution
	II	Impact of noise on human, impact of noise on vegetation
	III	Impact of noise on animals, impact of noise on property
6th	I	Unit-I Test
	II	The human ear, sound measurement, Effect of noise on hearing
	III	Mechanism of hearing and Hearing Damage Potential to sound energy
7th	I	Effects of noise on hearing: Non-auditory and Auditory effects, Methods of measuring sound
	II	
	III	Block diagram of sound level meter, Working of sound level meter
8th	I	Basic parameters of sound, properties of sound
	II	
	III	
9th	I	Principle of superposition, interference and diffraction
	II	
	III	Unit-II Test
10th	I	Noise and vibration: whole body vibration, controlling vibration
	II	Control measures, hand arm vibrations, ways to reduce vibrations
	III	Active vibration control, passive vibration control
11th	I	Industrial noise control
	II	Effects of noise on task performance, Community reaction to
	III	Concept of soundscape
12th	I	Unit-III Test
	II	Legal criteria regulations and international standards relating to sound and noise control using ISO(1999)
	III	Occupational Safety and Health Administration (OSHA)
13th	I	Beneficial and diagnostic aspects of sound measurements and cont
	II	Audiometric test
	III	Standard threshold shift
14th	I	Benefits of taking audiometric test
	II	Unit-IV Test
	III	Practice/Revision Session
I		
II		
15th	I	Practice/Revision Session
	II	

