

Course Number and Name												
BCE061 - AIR & NOISE POLLUTION												
Credits and Contact Hours												
3 & 45												
Course Coordinator's Name												
Dr.M.P.Chockalingam												
Text Books and References												
TEXT BOOKS:												
<ul style="list-style-type: none"> Anjaneyulu D., "Air Pollution and Control Technologies", Allied Publishers, Mumbai, 2002. 												
REFERENCES:												
<ul style="list-style-type: none"> Rao, C.S. Environmental Pollution Control Engineering, Wiley Eastern Ltd., New Delhi, 1996. Rao M.N., and Rao H. V. N., Air Pollution Control, Tata-McGraw-Hill, New Delhi, 1996. Stern A.C. <i>ed</i>, " Air Pollution Vol. I, II & III", Academic Press, New York, 1968 Cunniff P.F, "Environmental Noise Pollution", John Wiley & Sons, New York. 1977. Docks H.M., "Environmental Pollution", John Wiley & Sons. New York 1981. Chanlett T Emit,"Environmental Protection", McGraw Hill series in Water Resources and Environmental Engineering, New York. 1973. Patrick C.F,"Environemental noise pollution", John Wiley & Sons, 1977. 												
Course Description												
<ul style="list-style-type: none"> This subject covers the sources, characteristics and effects of air and noise pollution and the methods of controlling the same. The student is expected to know about source inventory and control mechanism. The emphasis in this course will be the monitoring and control of particulate and Gaseous pollutants, Minimization of the noise and noise pollution including technical measures, Codes, regulations, directives and standards about noise pollution. 												
Prerequisites						Co-requisites						
Environmental Studies						NIL						
required, elective, or selected elective (as per Table 5-1)												
Course Outcomes (COs)												
CO1	To learn about the air pollutants, sources and its effects.											
CO2	To have a clear understanding on the air quality standards and its techniques.											
CO3	To determine the fluid resistance for organic materials.											
CO4	To find the Properties of air pollution and its control measures.											
CO5	To learn about the effects and the sources of noise pollution.											
Student Outcomes (SOs) from Criterion 3 covered by this Course												
	COs/SOs	a	b	c	d	e	f	g	h	i	j	k
	CO1	H	L				M	H				
	CO2			H						L		

	CO3		M		H			H		H		
	CO4	H							M	M		
	CO5				H					H		

List of Topics Covered

UNIT I INTRODUCTION 9

Definition of clean air, nature, air pollutants, sources of air pollutants, effects of air pollution on man, animal, vegetation and properties.

UNIT II AMBIENT AIR QUALITY STANDARDS AND AIR QUALITY MONITORING 10

Harmful concentration – geographical factors in air pollution – air pollution control legislation. Classification sampling; sampling techniques; monitoring atmospheric pollution.

UNIT III FLUID RESISTANCE TO PARTICLE MOTION 9

Principles of removal of a gaseous constituent; adsorption and combustion; catalytic combustion of organic materials; catalytic oxidation and decomposition.

UNIT IV AIR POLLUTION AND CONTROL MEASURES 9

Setting chambers; momentum separators, fibrous filters; electro static precipitators; bag houses centrifugal spray scrubbers; venture scrubbers; elementary principles of air pollution e-control techniques.

UNIT V NOISE POLLUTION 8

Sound and noise; sources of noise pollution, environmental and industrial noise; effects of noise pollution: measures for prevention and control of noise; environmental and industrial noise; noise control legislation.