

**JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE  
CIVIL ENGINEERING DEPARTMENT**

**Course Outcome**

**Subject- Air & Noise Pollution control**

**Subject code-5CE5-11**

S.No	Sub Code	Subject Name	Course Outcomes (CO)
1	5CE5-11	<b>AIR &amp; NOISE POLLUTION CONTROL</b>	<p>CO1- To understand the concepts of air pollution &amp; its impacts on health, vegetation, materials and atmosphere.</p> <p>CO2-To understand the concepts of air sampling and various pollution measurement methods.</p> <p>CO3-To understand the basics of acoustics and specifications of sound.</p> <p>CO4-To understand the various effects of noise on health and study of various noise environments.</p>

**CO-PO Mapping**

**1- Low**

**2- Medium**

**3- High**

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
<b>CO1</b>	<b>3</b>	<b>1</b>	<b>-</b>	<b>3</b>	<b>-</b>	<b>3</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3</b>
<b>CO2</b>	<b>2</b>	<b>1</b>	<b>-</b>	<b>3</b>	<b>-</b>	<b>3</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>3</b>
<b>CO3</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>3</b>	<b>3</b>	<b>-</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>
<b>CO4</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3</b>

Jaipur Engineering College and Research Centre  
Civil Engineering Department  
Teaching Plan

Semester: 5th

Course: UG

Branch: Civil Engineering

Academic Year: 2020-21

Subject- ANP&C

Subject Code- 5CE5-11

Name of teacher Narendra Sipani

Subject type theory

Work load 02hrs/week

Lect No.	Topic Discription	Expeected Month	Expected week	Plan of teaching
1	Introduction,Scope, and Coutcome of subject	July	1	PPT
2	Air pollution and pollutants classification	July	1	PPT
3	combustion process and pollutant emission		2	PPT
4	effects of air pollutants on environment		2	PPT
5	Reaction of pollutants		3	PPT
6	Smoke Smog		3	PPT
7	Ozone layer disturbance		4	PPT
8	Green house effect		4	PPT
9	Air sampling and measurements		August	1
10	Principal of air sampling & Instruments	1		PPT
11	Ambient air air quality and standards	2		PPT
12	Air pollution indices	2		PPT
13	Air Act, legislation and regulations	3		PPT
14	Control of air pollution and Principles	3		PPT
15	Removal of gaseous pollutant by adsorption	4		PPT
16	Removal of gaseous pollutant by absorbtion	4		PPT
17	Praticulate emission control	September	1	PPT
18	Settling chambers, cyclone separation,wet collectors		1	PPT
19	Fabric filters,electrostatic precipitators and other meth		2	PPT
20	Biological air pollution control technologies		2	PPT
21	Indoor quality		3	PPT
22	Noise pollution basic		3	PPT
23	Sound intensity and sound pressure levels		4	PPT
24	Sources of noise pollution		4	PPT
25	sound propagation,Noise Crietria	October	1	PPT
26	Effects of noise pollution, Special noise environments		1	PPT
27	Noise Standards and Values, noise instrumentationanc		2	PPT
28	Noise Indices and control methods		2	PPT



# RAJASTHAN TECHNICAL UNIVERSITY, KOTA

## Syllabus

3<sup>rd</sup> Year - V Semester: B.Tech. (Civil Engineering)

### 5CE5-11: AIR & NOISE POLLUTION AND CONTROL

Credit: 2  
2L+0T+0P

Max. Marks: 100(IA:20, ETE:80)  
End Term Exam: 2 Hours

SN	Contents	Hours
1	Introduction: Objective, scope and outcome of the course.	1
2	<i>Air Pollution:</i> Air pollutants, Sources, classification, Combustion Processes and pollutant emission, Effects on Health, vegetation, materials and atmosphere, Reactions of pollutants in the atmosphere and their effects-Smoke, smog and ozone layer disturbance, Greenhouse effect.	7
	Air sampling and pollution measurement methods, principles and instruments, Ambient air quality and emission standards, Air pollution indices, Air Act, legislation and regulations, control principles,	6
	Removal of gaseous pollutants by adsorption, absorption, reaction and other methods. Particulate emission control, settling chambers, cyclone separation, Wet collectors, fabric filters, electrostatic precipitators and other removal methods like absorption, adsorption, precipitation etc. Biological air pollution control technologies, Indoor air quality.	7
3	<i>Noise pollution:</i> Basics of acoustics and specification of sound; sound power, sound intensity and sound pressure levels; plane, point and line sources, multiple sources; outdoor and indoor noise propagation; psychoacoustics and noise criteria,	4
	Effects of noise on health, annoyance rating schemes; special noise environments: Infrasound, ultrasound, impulsive sound and sonic boom; noise standards and limit values; noise instrumentation and monitoring procedure. Noise indices. Noise control methods	3
	<b>TOTAL</b>	<b>28</b>