

LESSON PLAN

Subject- Applied Chemistry & Environmental Science

Branch- Mechanical Engineering

Name of the Faculty- Prasant Behera

Session: 17-08-2026 to 17-04-2027

Class Days: Monday to Thursday (4/week)

Total Working Days Available: 128

Total Periods Planned: 128 (as per SCTE&VT)

Sl. No.	Date	Day	Unit	Period No	Topic / Content	Type
1	17-08-2026	Mon	UNIT-1: Air and Noise Pollution (10P)	P1	1.1 Pollution definition & classification	Teaching
2	19-08-2026	Wed	UNIT-1: Air and Noise Pollution (10P)	P2	1.2 Particulate pollutants & effects	Teaching
3	21-08-2026	Fri	UNIT-1: Air and Noise Pollution (10P)	P3	1.2 Control: Bag filter, Cyclone, ESP	Teaching
4	21-08-2026	Fri	UNIT-1: Air and Noise Pollution (10P)	P4	1.3 Gaseous control: Catalytic converter	Teaching
5	24-08-2026	Mon	UNIT-1: Air and Noise Pollution (10P)	P5	1.3 Effects due to Refrigerants, Boiler	Teaching
6	28-08-2026	Fri	UNIT-1: Air and Noise Pollution (10P)	P6	1.4 Noise pollution	Teaching
7	28-08-2026	Fri	UNIT-1: Air and Noise Pollution (10P)	P7	Revision Unit-1	Revision
8	31-08-2026	Mon	UNIT-1: Air and Noise Pollution (10P)	P8	Doubt clearing	Revision
9	02-09-2026	Wed	UNIT-1: Air and Noise Pollution (10P)	P9	Unit-1 Quiz	Quiz
10	07-09-2026	Mon	UNIT-1: Air and Noise Pollution (10P)	P10	Buffer / Internal-1 prep	Revision
11	09-09-2026	Wed	UNIT-2: Water and Soil Pollution (12P)	P1	2.1 Sources & types of water pollution	Teaching
12	11-09-2026	Fri	UNIT-2: Water and Soil Pollution (12P)	P2	2.2 Characteristics: Turbidity, pH, TSS, BOD, COD	Teaching
13	11-09-2026	Fri	UNIT-2: Water and Soil Pollution (12P)	P3	2.3 Waste water: Primary	Teaching
14	18-09-2026	Fri	UNIT-2: Water and Soil Pollution (12P)	P4	2.3 Secondary: Activated sludge, Bioreactor	Teaching
15	18-09-2026	Fri	UNIT-2: Water and Soil Pollution (12P)	P5	2.3 Tertiary: Membrane, RO	Teaching
16	21-09-2026	Mon	UNIT-2: Water and Soil Pollution (12P)	P6	2.4 Soil pollution: causes, effects, prevention	Teaching
17	23-09-2026	Wed	UNIT-2: Water and Soil Pollution (12P)	P7	2.5 Fertilizers, Pesticides, E-waste	Teaching
18	25-09-2026	Fri	UNIT-2: Water and Soil Pollution (12P)	P8	Numerical on BOD/COD	Teaching

19	25-09-2026	Fri	UNIT-2: Water and Soil Pollution (12P)	P9	Revision	Revision
20	28-09-2026	Mon	UNIT-2: Water and Soil Pollution (12P)	P10	Quiz Unit-2	Quiz
21	30-09-2026	Wed	UNIT-2: Water and Soil Pollution (12P)	P11	Doubt + Previous Q	Revision
22	05-10-2026	Mon	UNIT-2: Water and Soil Pollution (12P)	P12	Buffer	Revision
23	07-10-2026	Wed	UNIT-3: Solid Waste Management (10P)	P1	3.0 Solid waste: Municipal, E-waste, Biomedical	Teaching
24	09-10-2026	Fri	UNIT-3: Solid Waste Management (10P)	P2	3.1 Collection & disposal: 3R, Energy recovery	Teaching
25	09-10-2026	Fri	UNIT-3: Solid Waste Management (10P)	P3	3.1 Sanitary landfill, Hazardous waste	Teaching
26	12-10-2026	Mon	UNIT-3: Solid Waste Management (10P)	P4	3.2 Carbon Credit, Carbon Footprint	Teaching
27	14-10-2026	Wed	UNIT-3: Solid Waste Management (10P)	P5	3.3 Env. management in fabrication	Teaching
28	16-10-2026	Fri	UNIT-3: Solid Waste Management (10P)	P6	Revision Unit 1-3	Revision
29	16-10-2026	Fri	UNIT-3: Solid Waste Management (10P)	P7	1st INTERNAL - Unit 1-3	Internal
30	21-10-2026	Wed	UNIT-3: Solid Waste Management (10P)	P8	Doubt clearing	Revision
31	23-10-2026	Fri	UNIT-3: Solid Waste Management (10P)	P9	Assignment	Teaching
32	23-10-2026	Fri	UNIT-3: Solid Waste Management (10P)	P10	Buffer	Revision
33	26-10-2026	Mon	UNIT-4: Electrochemistry & Corrosion (16P)	P1	4.1 Oxidation, reduction, redox	Teaching
34	28-10-2026	Wed	UNIT-4: Electrochemistry & Corrosion (16P)	P2	4.2 Electrolytes, non-electrolytes	Teaching
35	30-10-2026	Fri	UNIT-4: Electrochemistry & Corrosion (16P)	P3	4.3 Faraday's laws + Numerical P1	Teaching
36	30-10-2026	Fri	UNIT-4: Electrochemistry & Corrosion (16P)	P4	4.3 Faraday's laws + Numerical P2	Teaching
37	02-11-2026	Mon	UNIT-4: Electrochemistry & Corrosion (16P)	P5	4.4 Electrometallurgy, Electroplating, Refining	Teaching
38	04-11-2026	Wed	UNIT-4: Electrochemistry & Corrosion (16P)	P6	4.5 Primary dry cell	Teaching
39	06-11-2026	Fri	UNIT-4: Electrochemistry & Corrosion (16P)	P7	4.5 Secondary: Lead storage, Fuel cell	Teaching
40	06-11-2026	Fri	UNIT-4: Electrochemistry & Corrosion (16P)	P8	4.6 Corrosion definition, types	Teaching
41	09-11-2026	Mon	UNIT-4: Electrochemistry & Corrosion (16P)	P9	4.6 H ₂ liberation & O ₂ absorption	Teaching

42	11-11-2026	Wed	UNIT-4: Electrochemistry & Corrosion (16P)	P10	4.6 Factors affecting corrosion	Teaching
43	13-11-2026	Fri	UNIT-4: Electrochemistry & Corrosion (16P)	P11	4.7 Internal prevention	Teaching
44	13-11-2026	Fri	UNIT-4: Electrochemistry & Corrosion (16P)	P12	4.7 External: anodic/cathodic coatings	Teaching
45	16-11-2026	Mon	UNIT-4: Electrochemistry & Corrosion (16P)	P13	4.7 Organic inhibitors	Teaching
46	18-11-2026	Wed	UNIT-4: Electrochemistry & Corrosion (16P)	P14	Numerical + Revision	Revision
47	20-11-2026	Fri	UNIT-4: Electrochemistry & Corrosion (16P)	P15	Unit-4 Quiz	Quiz
48	20-11-2026	Fri	UNIT-4: Electrochemistry & Corrosion (16P)	P16	Buffer	Revision
49	23-11-2026	Mon	UNIT-5: Fuels and Lubricants (14P)	P1	5.1 Fuel definition, classification, HCV/LCV	Teaching
50	25-11-2026	Wed	UNIT-5: Fuels and Lubricants (14P)	P2	5.2 Petrol, diesel, octane/cetane	Teaching
51	27-11-2026	Fri	UNIT-5: Fuels and Lubricants (14P)	P3	5.3 LPG, CNG, water gas, coal gas, biogas	Teaching
52	27-11-2026	Fri	UNIT-5: Fuels and Lubricants (14P)	P4	5.4 Lubricant definition, function, classification	Teaching
53	30-11-2026	Mon	UNIT-5: Fuels and Lubricants (14P)	P5	5.5 Lubrication mechanism	Teaching
54	02-12-2026	Wed	UNIT-5: Fuels and Lubricants (14P)	P6	5.6 Physical properties	Teaching
55	04-12-2026	Fri	UNIT-5: Fuels and Lubricants (14P)	P7	5.6 Chemical properties	Teaching
56	04-12-2026	Fri	UNIT-5: Fuels and Lubricants (14P)	P8	5.6 Good lubricant characteristics	Teaching
57	07-12-2026	Mon	UNIT-5: Fuels and Lubricants (14P)	P9	Numerical on calorific value	Teaching
58	09-12-2026	Wed	UNIT-5: Fuels and Lubricants (14P)	P10	Revision Unit 4-5	Revision
59	11-12-2026	Fri	UNIT-5: Fuels and Lubricants (14P)	P11	2nd INTERNAL - Unit 4-5	Internal
60	11-12-2026	Fri	UNIT-5: Fuels and Lubricants (14P)	P12	Doubt clearing	Revision
61	14-12-2026	Mon	UNIT-5: Fuels and Lubricants (14P)	P13	Assignment + Quiz	Quiz
62	16-12-2026	Wed	UNIT-5: Fuels and Lubricants (14P)	P14	Buffer	Revision
63	18-12-2026	Fri	UNIT-6: Atomic Structure (21P)	P1	6.1 Rutherford model & failures	Teaching
64	18-12-2026	Fri	UNIT-6: Atomic Structure (21P)	P2	6.2 Bohr's theory & hydrogen spectrum	Teaching
65	21-12-2026	Mon	UNIT-6: Atomic Structure (21P)	P3	6.3 Quantum numbers, s,p,d shapes	Teaching

66	23-12-2026	Wed	UNIT-6: Atomic Structure (21P)	P4	6.4 Pauli's, Heisenberg, Aufbau	Teaching
67	28-12-2026	Mon	UNIT-6: Atomic Structure (21P)	P5	6.4 Electronic config upto 30, Hund's rule	Teaching
68	30-12-2026	Wed	UNIT-6: Atomic Structure (21P)	P6	6.5 Chemical bonding: ionic (NaCl)	Teaching
69	01-01-2027	Fri	UNIT-6: Atomic Structure (21P)	P7	6.5 Covalent (H ₂ , F ₂ , HF)	Teaching
70	01-01-2027	Fri	UNIT-6: Atomic Structure (21P)	P8	6.6 Sigma & pi bonds	Teaching
71	04-01-2027	Mon	UNIT-6: Atomic Structure (21P)	P9	6.6 Hybridization: BeCl ₂ , BF ₃ , CH ₄ , NH ₃ , H ₂ O	Teaching
72	06-01-2027	Wed	UNIT-6: Atomic Structure (21P)	P10	6.7 Coordination bond NH ₄ ⁺ , metallic	Teaching
73	08-01-2027	Fri	UNIT-6: Atomic Structure (21P)	P11	6.8 H-bond & anomalous NH ₃ , H ₂ O	Teaching
74	08-01-2027	Fri	UNIT-6: Atomic Structure (21P)	P12	6.9 Solution concentration terms	Teaching
75	11-01-2027	Mon	UNIT-6: Atomic Structure (21P)	P13	6.9 Normality, Molarity, Molality	Teaching
76	13-01-2027	Wed	UNIT-6: Atomic Structure (21P)	P14	6.9 ppm, mass%, volume%, mole fraction	Teaching
77	15-01-2027	Fri	UNIT-6: Atomic Structure (21P)	P15	6.9 Numerical P1	Teaching
78	15-01-2027	Fri	UNIT-6: Atomic Structure (21P)	P16	6.9 Numerical P2	Teaching
79	18-01-2027	Mon	UNIT-6: Atomic Structure (21P)	P17	6.9 Numerical P3	Teaching
80	20-01-2027	Wed	UNIT-6: Atomic Structure (21P)	P18	Revision Unit-6	Revision
81	22-01-2027	Fri	UNIT-6: Atomic Structure (21P)	P19	Quiz	Quiz
82	22-01-2027	Fri	UNIT-6: Atomic Structure (21P)	P20	Doubt	Revision
83	25-01-2027	Mon	UNIT-6: Atomic Structure (21P)	P21	Buffer	Revision
84	27-01-2027	Wed	UNIT-7: Water Treatment (13P)	P1	7.1 Water distribution, soft & hard water	Teaching
85	29-01-2027	Fri	UNIT-7: Water Treatment (13P)	P2	7.2 Hardness causes, unit, numerical	Teaching
86	29-01-2027	Fri	UNIT-7: Water Treatment (13P)	P3	7.3 Poor lathering, boiler problems	Teaching
87	01-02-2027	Mon	UNIT-7: Water Treatment (13P)	P4	7.4 EDTA, TDS, alkalinity	Teaching
88	03-02-2027	Wed	UNIT-7: Water Treatment (13P)	P5	7.5 Softening: soda lime P1	Teaching
89	05-02-2027	Fri	UNIT-7: Water Treatment (13P)	P6	7.5 Softening: zeolite, ion exchange P2	Teaching
90	05-02-2027	Fri	UNIT-7: Water Treatment (13P)	P7	7.6 Municipal: sedimentation, coagulation	Teaching
91	08-02-2027	Mon	UNIT-7: Water Treatment (13P)	P8	7.6 Filtration, sterilization	Teaching
92	10-02-2027	Wed	UNIT-7: Water Treatment (13P)	P9	Numerical on hardness	Teaching
93	12-02-2027	Fri	UNIT-7: Water	P10	Revision	Revision

			Treatment (13P)			
94	12-02-2027	Fri	UNIT-7: Water Treatment (13P)	P11	Quiz	Quiz
95	15-02-2027	Mon	UNIT-7: Water Treatment (13P)	P12	Doubt	Revision
96	17-02-2027	Wed	UNIT-7: Water Treatment (13P)	P13	Buffer	Revision
97	19-02-2027	Fri	UNIT-8: Engineering Materials (11P)	P1	8.1 Minerals, ores of Fe, Al, Cu	Teaching
98	19-02-2027	Fri	UNIT-8: Engineering Materials (11P)	P2	8.2 Metallurgy principles	Teaching
99	22-02-2027	Mon	UNIT-8: Engineering Materials (11P)	P3	8.3 Alloys: purpose, types	Teaching
100	24-02-2027	Wed	UNIT-8: Engineering Materials (11P)	P4	8.3 Brass, Bronze, Stainless steel	Teaching
101	26-02-2027	Fri	UNIT-8: Engineering Materials (11P)	P5	8.4 Polymers: monomer, degree, addition & condensation	Teaching
102	26-02-2027	Fri	UNIT-8: Engineering Materials (11P)	P6	8.5 PVC, PS, PTFE, Nylon-6, Nylon-6,6, Bakelite	Teaching
103	01-03-2027	Mon	UNIT-8: Engineering Materials (11P)	P7	8.6 Rubber & vulcanization	Teaching
104	03-03-2027	Wed	UNIT-8: Engineering Materials (11P)	P8	Revision	Revision
105	05-03-2027	Fri	UNIT-8: Engineering Materials (11P)	P9	Quiz	Quiz
106	05-03-2027	Fri	UNIT-8: Engineering Materials (11P)	P10	Doubt	Revision
107	08-03-2027	Mon	UNIT-8: Engineering Materials (11P)	P11	Buffer	Revision
108	10-03-2027	Wed	UNIT-9: Ecosystem (8P)	P1	9.1 Structure, biotic/abiotic, food chain & web	Teaching
109	12-03-2027	Fri	UNIT-9: Ecosystem (8P)	P2	9.2 Aquatic & terrestrial	Teaching
110	12-03-2027	Fri	UNIT-9: Ecosystem (8P)	P3	9.3 C, N, S, P cycles P1	Teaching
111	15-03-2027	Mon	UNIT-9: Ecosystem (8P)	P4	9.3 Cycles P2	Teaching
112	17-03-2027	Wed	UNIT-9: Ecosystem (8P)	P5	9.4 Global warming, Green house, Ozone	Teaching
113	19-03-2027	Fri	UNIT-9: Ecosystem (8P)	P6	Revision Unit 8-9	Revision
114	19-03-2027	Fri	UNIT-9: Ecosystem (8P)	P7	Quiz	Quiz
115	22-03-2027	Mon	UNIT-9: Ecosystem (8P)	P8	Buffer	Revision
116	24-03-2027	Wed	UNIT-10: Renewable Energy (13P)	P1	10.1 Solar: Flat plate collector, pond, heater, dryer, stills P1	Teaching
117	26-03-2027	Fri	UNIT-10: Renewable Energy (13P)	P2	10.1 Solar P2	Teaching
118	26-03-2027	Fri	UNIT-10: Renewable Energy (13P)	P3	10.1 Solar P3	Teaching
119	29-03-2027	Mon	UNIT-10: Renewable Energy (13P)	P4	10.2 Biomass as energy	Teaching

120	31-03-2027	Wed	UNIT-10: Renewable Energy (13P)	P5	10.3 Anaerobic digestion, biogas	Teaching
121	02-04-2027	Fri	UNIT-10: Renewable Energy (13P)	P6	10.4 Wind energy India, benefits & problems	Teaching
122	02-04-2027	Fri	UNIT-10: Renewable Energy (13P)	P7	10.5 New sources: need, types	Teaching
123	05-04-2027	Mon	UNIT-10: Renewable Energy (13P)	P8	10.5 Hydrogen, Tidal, Geothermal	Teaching
124	07-04-2027	Wed	UNIT-10: Renewable Energy (13P)	P9	Revision Unit 10	Revision
125	09-04-2027	Fri	UNIT-10: Renewable Energy (13P)	P10	Revision Unit 6-10	Revision
126	09-04-2027	Fri	UNIT-10: Renewable Energy (13P)	P11	3rd INTERNAL / MODEL TEST - Unit 6-10	Internal
127	12-04-2027	Mon	UNIT-10: Renewable Energy (13P)	P12	Doubt + Previous year Q	Revision
128	16-04-2027	Fri	UNIT-10: Renewable Energy (13P)	P13	Final Buffer / End Exam Prep	Revision

Beh
Prasant Behera

Lect.(II) In Chemistry

S. Smit
28-07-2026

HOD
Math& Sc. Dept.