

Govt. Polytechnic Korea

Course Completion unit plan

Department - Science and Humanities

Subject - Applied Chemistry (Th)

Hours/Week -

Lab/Week

S.No.	Topic to taught	No. of lecture required	Date of delivery	Actual Date of Delivery	Topic Covered	Remark
1	unit 1. Atomic Structures Intro, Def, Exam, App.	03	23.06.25	23.06.25	Atomic Structures - Intro, Def, Definition, Exam, Application	
2	Electronics star, Discovery of electrons, protons, neutrons etc	02	24.06.25	24.06.25	same topic.	
3	Rutherford model and Bohr's Bohr's scheme, Aufbau's Rule.	02	25.06.25	25.06.25	same topic	
4	Heisenberg's uncertainty Th and Quantum Numbers.	01	30.06.25	30.06.25	same topic.	
5	Pauli's Exclusion principle and Hund's Rule	01	01.07.25	01.07.25	Same topic.	
6	Distribution of electrons in shell, sub shell and orbitals.	01	02.07.25	02.07.25	Same topic.	
7	Chemical Bonding - Theory and classification	02	03.07.25	03.07.25	same topic.	
8	Co-ordinate bond and Hydrogen bond	01	07.07.25	07.07.25	Same topic	
9	unit 2. Water Treatment - Intro, Def, Types of water.	01	08.07.25	08.07.25	Same topic	
10	Hardness, Types of Hardness determination of hardness by EDTA	01	09.07.25	09.07.25	Same topic.	
11	Hard water, Boiler problems scale and sludge, pumping, foaming.	02	10.07.25	10.07.25	Same topic.	
12	water softening. Lime, Soda method, zeolite method	01	14.07.25	14.07.25	Same topic.	
13	ion exchange method, Bar COD municipal water treatment.	01	15.07.25	15.07.25	Same topic.	
14	polymer: intro, Def, Types exam classification.	01	16.07.25	16.07.25	Same topic.	
15	Rubber, Types, Natural and synthetic Rubber	01	21.07.25	21.07.25	Same topic.	
16	unit 3. Conductance factor affecting the conductance with ex.	01	22.07.25	22.07.25	Same topic	
17	Electrical Conductance, specific conductance and cell constant	01	23.07.25	23.07.25	Same topic	
18	Electrodes: Hydrogen, calomel and Glass electrodes	01	28.07.25	28.07.25	Same topic.	
19	Conductometric Titration	01	29.07.25	29.07.25	Same topic.	
20	Batteries, Electrical Insulation and Thermal couple alloy.	01	30.07.25	30.07.25	Same topic	

(Signature)

Date

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1	Unit - 4 - Metallurgy, Mineral Ore, Gangue, Flux, Slag.	01	04.08.25	04.08.25	Metallurgy, Mineral Ore, Gangue, Flux, Slag.	
2	Metallurgical process of Iron and Copper	02	05.08.25	05.08.25	same topic	
3	Metal Alloys - Ferrous Alloys, Non-ferrous alloys etc.	02	06.08.25	06.08.25	same topic	
4	Cement - constituent setting and hardening.	01	11.08.25	11.08.25	same topic.	
5	Unit - 5 Fuel and combustion Intro. def. Examples.	01	12.08.25	12.08.25	Fuel and combustion	
6	Calorific value and ignition temp., classification of fuel.	02	13.08.25	13.08.25	same topic	
7	Lubricants, paints and varnishes	02	18.08.25	18.08.25	same topic	
8	Bio gas, LPG, and CNG	01	19.08.25	19.08.25	same topic	
9	Bomb calorimeter, knocking, cracking and octane number	01	20.08.25			
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12	Applied	Practical				
13		H.O.D.			Applied Potentiometer	
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Course Completion unit plan

Department - Science and Humanities

Hours/Week -

Subject - Applied Chemistry (Lab)

Lab/Week

S.No.	Topic to taught	No. of lecture required	Date of delivery	Actual Date of Delivery	Topic Covered	Remark
1	General instruction for lab.	02	24.06.25	24.06.25	General instruction for lab	
2	To determine the weight of given chemicals using chemical balance	02	26.06.25	26.06.25	same topic.	
3	To determine the hardness of water by EDTA method.	02	01.07.25	01.07.25	same topic	
4	To prepare N/10 Sodium hydroxide solution	02	03.07.25	03.07.25	Same topic	
5	To prepare Hydro-Chloric acid N/10 solution.	02	08.07.25	08.07.25	Same topic	
6	To determine the pH value of given sample using pH meter	02	10.07.25	10.07.25	same topic	
7	General instruction for conductometric titration.	02	15.07.25	15.07.25	same topic.	
8	To determine the strength of HCl soln. using conductometer.	02	17.07.25	17.07.25	same topic	
9	To prepare N/30 Ferric Ammonium Sulphate soln.	02	22.07.25	22.07.25	Same topic.	
10	To determine the conc. of FAS Soln. using Redox titration.	02	29.07.25	29.07.25	same topic	
11	To determine the strength of HCl soln. using potentiometric standardisation of $KMnO_4$ soln.	02	31.07.25	31.07.25	same topic	
12	standardisation of $KMnO_4$ soln. using standard acid soln.	02	05.08.25	05.08.25	same topic	
13	General instruction for the determination of calorific value	02	07.08.25	07.08.25	Same topic	
14	General instruction for fractional distillation apparatus	02	12.08.25	12.08.25	same topic'	
15	General instruction for the preparation of practical VERM	02	14.08.25	14.08.25	same topic'	
16	To check the practical record copy.	02	19.08.25	19.08.25	same topic'	
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Chappala

Dial
N.O.D.

Prakash
Principal