



**GOVERNMENT DEGREE COLLEGE,
CHEBROLE**
Guntur District, Andhra Pradesh, Pin 522212
Affiliated to Acharya Nagarjuna University
Email: jkc.chebrole@gmail.com Phone No. 08644-254221



Course Design

Name of the Certificate Course: "Role of Chemistry in Every Day Life"
Duration of the Course: 30 Hrs
Date of Commencement: 06-06-2023
Timings: From 09.00AM to 10.00 A.M every day
Participating students: All the students of I st year I Sem M.P.C and C.B.Z
Name of the Programme Co-ordinators: B.Koteswarao, Lecturer in Chemistry

Objective of the Certificate Course:

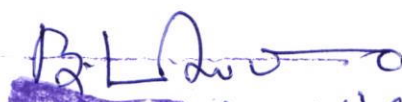
ROLE OF CHEMISTRY IN EVERY DAY LIFE

'Chromatography' is an analytical technique commonly used for separating a mixture of chemical substances into its individual components, so that the individual components can be thoroughly analyzed. There are many types of chromatography e.g. liquid chromatography, gas chromatography, ion-exchange chromatography, affinity chromatography, but all of these employ the same basic principles.

LEARNING OUTCOMES:

After successful completion of this course students should be able to:

- Awareness of students is increased about water pollution, air pollution, and its effects, remedies.
- Students clearly understood about different names of drugs and generic drug
- Students gained knowledge about trace metals in biology and their importance in maintaining health.


Lecturer in Chemistry
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ROLE OF CHEMISTRY IN EVERYDAY LIFE

SYLLABUS

Unit-I: Environmental Chemistry

- Environmental Chemistry: Terminology (Pollutant, Contaminant, Receptor, Sink, COD, BOD, DO, TLV).
- Air pollution: Causes, Effects, Acid rains, Depletion in Ozone layer, Green house effect.
- Water pollution: Causes, Effects, Eutrophication, Effects of fluorides.

Unit-II: Biological importance of metals

- Classification of metals: essential and nonessential elements
- Trace elements: Biological importance of Sodium, Potassium, Chloride, Magnesium, Calcium, Iron, Cobalt, Nickel, Copper and Zinc.
- Metalloporphyrins: Structure of Hemoglobin, and Chlorophyll, Vitamin B₁₂.

Unit-III: Medicinal Chemistry

- Medicinal Chemistry: Terminology – Drug, Medicine, Pharmacy etc. Classification of Drugs with examples.
- Importances and structures of Paracetamol, Ibuprofen, Chloroquine, Omeprazole, Ciprofloxacin, Penicillin and Aspirin.
- Chemical names, generic names and brand names.

The world has achieved brilliance without wisdom, power without conscience.

Ours is a world of nuclear giants and ethical infants.

B. L. Rao
Lecturer in Chemistry
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V. Sridhar
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CHEBROLE, Guntur Dt. (A.P.)

The students pursuing I st year I Sem M.P.C and C.B.Z during the academic year 2022-23 to upgrade their skills, to grab the Jobs and Opportunities in Chemical Industry field. This course has been designed with the objective of training them in “Role of Chemistry in Every Day Life”

Method: “Role of Chemistry in Every Day Life” learns through theory and in a practical manner.

Syllabus of the Course:

S.NO	NAME OF THE TOPIC	DATE
	Unit-I: Environmental Chemistry	
1	Environmental Chemistry\Terminology(Pollutant, Contaminant,	06-06-2023
2	Receptor, Sink	07-06-2023
3	COD, BOD, DO, TLV.	08-06-2023
4	Air pollution: Causes, Effects, Acid rains,	09-06-2023
5	Depletion in Ozone layer,	10-06-2023
6	Greenhouse effect	12-06-2023
7	Water pollution: Causes, Effects,	13-06-2023
8	Eutrophication	14-06-2023
9	Effects of fluorides.	15-06-2023
	UNIT-II: BIOLOGICAL IMPORTANCE OF METALS	
10	Classification of metals:	16-06-2023
11	essential elements	17-06-2023
12	and non essential elements	19-06-2023
13	Trace elements: Biological importance of Sodium,	20-06-2023
14	Potassium, Chloride,	21-06-2023
15	Magnesium, Calcium, Iron,	22-06-2023
16	Cobalt, Nickel,	23-06-2023
17	Copper and Zinc.	24-06-2023
18	Metalloporphyrins: Structure of Hemoglobin, and	26-06-2023
19	Chlorophyll,	27-06-2023
20	Vitamin B12.	28-06-2023

	Unit-III: Medicinal Chemistry	
21	Medicinal Chemistry: Terminology –.	30-06-2023
22	Drug, Medicine,	01-07-2023
23	Pharmacy etc	03-07-2023
24	Classification of Drugs with examples.	04-07-2023
25	Importance and structures of Paracetamol,	05-07-2023
26	Ibuprofen, Chloroquine,	06-07-2023
27	Omeprazole, Ciprofloxacin	07-07-2023
28	Penicillin and Aspirin.	08-07-2023
29	Chemical names,	10-07-2023
30	Generic names and brand names.	11-07-2023
	Exam	13-07-2023

Evaluation

Exam will be conducted in objective method for 25 marks after the completion of 30 instruction hours. 75% attendance is mandatory for each student to take the exam. Certificates will be issued only to those students who secure 12 marks out of 25 in the written exam.

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