

DEPARTMENT OF CHEMISTRY UNIVERSITY OF LUCKNOW

Four Year Undergraduate Course Structure:

Subject: Chemistry Semester III NEP (Revised)

For students admitted in session 2024-25 onwards

Chemistry in Daily Life Semester III Co Curriculum (CC 2)

Credits 2 MM 100 (75 + 25)

Course Outcomes

- CO 1: Understand the role of Chemistry in household activities
- CO 2: Know about the chemistry involved in electronic, computerized gadgets and batteries
- CO 3: Understanding the importance of chemistry in food

Unit-I

• Chemistry in the kitchen:

o Chemistry of cooking - physical and chemical changes, stability of nutrients during cooking, Microwave cooking, butter and cooking oil - saturated and unsaturated fatty acids, hydrogenation of oil.

Unit-II

Chemistry in the atmosphere:

o Pollution. Acid rain, Ozone layer, Global warming, Green chemistry and relevant international conventions.

Chemistry of Local Industries:

o Sugar and food industries and their implications on community, Cracking of petroleum, ethanol production,

Chemistry of common appliances:

o Printer inks, paints & Varnish and stainless steel, Corrosion and corrosion resistant materials.

Chemistry of Energy:

o Energy we use and energy we need, batteries, cells Cost of energy, Alternate energy - solar and fuel cell, Chemistry of motor vehicle, fuel additives, lubricating oils, brake fluid, accumulators.

Unit-IV

• Chemistry of Thoughts:

 Positive and Negative thoughts (stress) chemicals and role of meditation and yoga to mitigate the stress related chemicals.

Ethical issues in chemical research:

o Chemical and nuclear weapons, Environmental issues. Integrity of scientific results, the welfare of research participants.

Books Recommended

- 1. Chemistry in Daily Life by Kripal Singh (Third Edition) ISBN-978-81-203-4b17-8
- 2. Chemistry in Daily Life By Trnst L. Tohn. ISBN 9781440084508.