

Shivraj College of Arts, Commerce and D. S. Kadam Science College, Gadhinglaj

Department of Chemistry

B.Sc. (Chemistry)

On completion of **B.Sc. in Chemistry** the candidate will have:

PROGRAM OUTCOMES (PO)

- Demonstrate, solve and an understanding of major concepts in all disciplines of Chemistry.
- Solve the problem and also think methodically, independently and draw a logical conclusion.
- Employ critical thinking and the scientific knowledge to design, carry out, record and analyze the results of chemical reactions.
- Create an awareness of the impact of Chemistry on the environment, society and development outside the scientific community.
- Find out the green route for chemical reaction for sustainable development.
- To inculcate the scientific temperament in the students and outside the scientific community.
- Use modern techniques and decent equipment's.

PROGRAM SEPCIFIC OUTCOMES (PSO)

- Gain the knowledge of Chemistry through theory and practical's.
- To explain nomenclature, stereochemistry, structures, reactivity and mechanism of the chemical reactions.
- Use modern chemical tools, Models, Charts and Equipment's.
- Know the structure-activity relationship.
- Understand good laboratory practices and safety.
- Make aware and handle the sophisticated instruments/equipment.
- Achieve the skills required to succeed in graduate school, professional school and the chemical industry like cement industries, agro product, Paint industries, Rubber industries, Petrochemical industries, Food processing industries, Fertilizer industries, etc.
- Also they expand the knowledge available opportunities related to chemistry in the government services through public service commission particularly in the field of food safety, health inspector, pharmacist, etc.
- Learn the laboratory skills and safely to transfer and interpret knowledge entirely in the working environment.

COURSE OUTCOME (CO)

| Class | Course | Semester | Outcome |
|--------------|-----------------------------------|-------------------|--|
| B. Sc. I | Inorganic Chemistry | Semester-I | 1. Understand importance of analysis. |
| | Organic Chemistry | | 2. Aware of qualities & properties of potable water. |
| | Physical Chemistry | Semester-II | 3. Enhanced learning of chromatographic techniques. |
| | Analytical Chemistry | | 4. Acquire knowledge of fertilizer analysis. |
| B. Sc. II | Physical Chemistry | Semester-III | 1. Learn & understand the basic concepts in industry. |
| | Industrial Chemistry | | 2. Knowledge of Unit operations Indian Paper industry. |
| | Inorganic Chemistry | Semester-IV | 3. To learn about estimation of hardness of water through Complexometric titrations. |
| | Organic Chemistry | | 4. To become familiar with some applications of coordination compounds to be able to predict the geometries of simple molecules. |
| B. Sc. III | Inorganic Chemistry | Semester-V and | 1. Enriched knowledge helps in the understanding of the study of nanoparticles with ease. |
| | Organic Chemistry | | Semester-VI |
| | Physical Chemistry | | |
| | Analytical & Industrial Chemistry | | 4. Know the processes used in Industries and their applications. |