St. Joseph Baz College, Cortalim-Goa.

Faculty: Science

**Department:** Chemistry

**Programme Outcomes (PO's)** 

**PO1** Critical Thinking: Acquire knowledge of theoretical and practical aspects;

enhance innovative ideas in science and technology, develop and investigate

throughout their learning from different perspectives.

PO2 Effective Communication: Able to understand, converse, and direct the

scientific knowledge gained.

**PO3** Social Interaction: Able to analyze the different aspects and interpret the

data by following the scientific methods and hence solve the different problems

in the society at large.

**PO4** Effective Citizenship: Helps in understanding different areas of science such

as Chemistry, Botany, Physics and Mathematics as this course forms the basis of

science and develops the method of understanding and selflessness.

**PO5** Ethics: As a result of gaining scientific knowledge they recognize different

value systems and moral dimensions of the decisions taken and accept the

responsibilities.

**PO6** Environment and Sustainability: Understand the issues of environmental

perspective and discover ways for sustainable development.

**PO7** Self directed and Life-long Learning: In the process, students acquire skills,

design, apply and utilize the technology in day to day life.

**Programme Specific Outcomes (PSO's)** 

**PSO1** Students will be able to acquire core knowledge in the key areas of

Chemistry, develop written & oral communication skills in communicating

chemistry-related topics.

**PSO2** Design & conduct experiments, demonstrate their understanding of the

scientific methods & processes.

**PSO3** Develop proficiency in acquiring data using a variety of instruments,

analyse & interpret the data, learn applications of numerical techniques.

**PSO4** Realize & develop an understanding of the impact of Chemistry on society.

**Course Name:** Fundamentals of Chemistry

Course Code: CHC 100

Class: First Year B.Sc.

**THEORY:** The students will be able to

**CO1** Identify the properties of liquids and gases.

**CO2** Explain the applications of liquid and gas.

**CO3** Elucidate the atomic structure based on Quantum Theory.

CO4 Identify the use of curved arrow notations inorganic reaction

mechanisms.

CO5 Understand various methods of preparation and reactions of alkanes,

alkenes and alkynes.

**PRACTICAL:** The students will be able to

**CO1** To acquire the knowledge and skill of basic volumetric and gravimetric

estimations.

- CO2 The students will be able to get hands-on experience on the purification techniques for organic compounds.
- CO3 The students will be able to get hands on experience on the identification of chemical nature of organic compounds.