

## **PROGRAM OUTCOMES (POs)**

### **B.Sc. (Honours/Research) in Chemistry**

The student graduating with the Degree B.Sc. (Honours/Research) in Chemistry should be able to understand:

**PO-1 Core competency:** Students will acquire core competency in the subject Chemistry, and in allied subject areas.

**PO-2** Systematic and coherent understanding of the fundamental concepts in Physical Chemistry, Organic Chemistry, Inorganic Chemistry, Analytical Chemistry, and all other related allied chemistry subjects.

**PO-3** Students will be able to understand use the evidence based comparative chemistry approach to explain the chemical synthesis and analysis.

**PO-4** The students will be able to understand the characterization of materials.

**PO-5** Students will be able to understand the basic principle of equipment, instruments used in the chemistry laboratory.

**PO-6** Students will be able to understand / demonstrate the experimental techniques and methods of their area of specialization in Chemistry.

**PO-7 Disciplinary knowledge and skill:** A graduate student are expected to be capable of demonstrating comprehensive knowledge and understanding of both theoretical and experimental/applied chemistry knowledge in various fields of interest like Analytical Chemistry, Physical Chemistry, Inorganic Chemistry, Organic Chemistry, Material Chemistry, etc. Further, the student will be capable of using of advanced instruments and related soft-wares for in-depth characterization of materials/chemical analysis and separation technology.

**PO-8 Skilled communicator:** The course curriculum incorporates basics and advanced training in order to make a graduate student capable of expressing the subject through technical writing as well as through oral presentation.

**PO-9 Critical thinker and problem solver:** The course curriculum also includes components that can be helpful to graduate students to develop critical thinking ability by way of solving problems/numerical using basic chemistry knowledge and concepts.

**PO-10 Skilled project manager:** The course curriculum has been designed in such a manner as to enabling a graduate student to become a skilled project manager by acquiring knowledge about chemistry project management, writing, planning, study of ethical standards and rules and regulations pertaining to scientific project operation.

**PO-11 Ethical awareness/reasoning:** A graduate student requires to understand and develop ethical awareness/reasoning which the course curriculum adequately provide.

**PO-12 Lifelong learner:** The course curriculum is designed to inculcate a habit of learning continuously through use of advanced ICT technique and other available techniques/books/journals for personal academic growth as well as for increasing employability opportunity.