➢ To adopt critical pedagogic practices which uphold scientific temper, the uncompromised spirit of inquiry, and the right to dissent.

3. THE PROGRAMME OUTCOMES (POs)

Programme Outcomes (POs): Programme outcomes can be defined as the objectives achieved at the end of any specialization or discipline. These attributes are mapped while a student is doing graduation and determined when they get a degree.

PO 1. Advanced Knowledge and Skills: Postgraduate courses aim to provide students with in-depth knowledge and advanced skills related to their chosen field. The best outcome would be to acquire a comprehensive understanding of the subject matter and develop specialized expertise.

PO 2. Research and Analytical Abilities: Postgraduate programs often emphasize research and analytical thinking. The ability to conduct independent research, analyze complex problems, and propose innovative solutions is highly valued.

PO 3. Critical Thinking and Problem-Solving Skills: Developing critical thinking skills is crucial for postgraduate students. Being able to evaluate information critically, identify patterns, and solve problems creatively are important outcomes of these programs.

PO 4. Effective Communication Skills: Strong communication skills, both written and verbal, are essential in various professional settings. Postgraduate programs should focus on enhancing

communication abilities to effectively convey ideas, present research findings, and engage in academic discussions.

PO 5. Ethical and Professional Standards: Graduates should uphold ethical and professional standards relevant to their field. Understanding and adhering to professional ethics and practices are important outcomes of postgraduate education.

PO 6. Career Readiness: Postgraduate programs should equip students with the necessary skills and knowledge to succeed in their chosen careers. This includes practical skills, industry-specific knowledge, and an understanding of the job market and its requirements.

PO 7. Networking and Collaboration: Building a professional network and collaborating with peers and experts in the field are valuable outcomes. These connections can lead to opportunities for research collaborations, internships, and employment prospects.

PO 8. Lifelong Learning: Postgraduate education should instil a passion for lifelong learning. The ability to adapt to new developments in the field, pursue further education, and stay updated with emerging trends is a desirable outcome.

4. PROGRAMME SPECIFIC OUTCOMES OF MSc CHEMISTRY

Program Specific Outcomes (PSOs) serve as a framework to outline the specific goals and expected learning outcomes of the MSc Chemistry program. These outcomes are designed to ensure that graduates possess the necessary knowledge, skills, and abilities to excel in their careers or pursue further research in the field of chemistry. The Programme Specific Outcomes are given below.

PSO 1. In-depth knowledge of core concepts: Understanding of the fundamental principles and theories in various sub-disciplines of chemistry, including organic, inorganic, physical, analytical, and theoretical chemistry.

PSO 2. Advanced laboratory skills: Possess advanced laboratory skills necessary for planning, executing, and analyzing experiments in diverse areas of chemistry. This includes skill in handling chemical reagents, instruments, and equipment, as well as accurate measurement techniques.

PSO 3. Research and scientific inquiry: Exhibit competence in designing and conducting independent research projects in chemistry, including formulating research questions, implementing methodologies, collecting and interpreting data, and drawing appropriate conclusions.

PSO 4. Critical thinking, data analysis, interpretation, and problem-solving: Apply critical thinking skills to analyze complex chemical problems and propose innovative solutions. Effective in interpreting experimental data using appropriate statistical methods and computational tools.

PSO 5. Effective communication: Communicate scientific ideas, research findings, and complex concepts effectively through written reports, research papers, and oral presentations.

PSO 6. Safety and ethical practices: Awareness of ethical principles and safety protocols in all aspects of chemical research and laboratory work.

PSO 7. Interdisciplinary knowledge and collaboration: Display the ability to integrate knowledge from various fields, collaborate with interdisciplinary teams, and apply chemical principles to solve problems in related areas, such as environmental science, materials science, pharmaceuticals, biochemistry, nanoscience, etc.

5. THE COURSE OUTCOMES

Course Outcomes (COs): Course outcomes are the objectives that are achieved at the end of any semester/year. For instance, if a student is studying a particular course, then, the outcomes would be concluded on the basis of the marks or grades achieved in theory and practical lessons. The COs are set at the beginning of the study of each course.