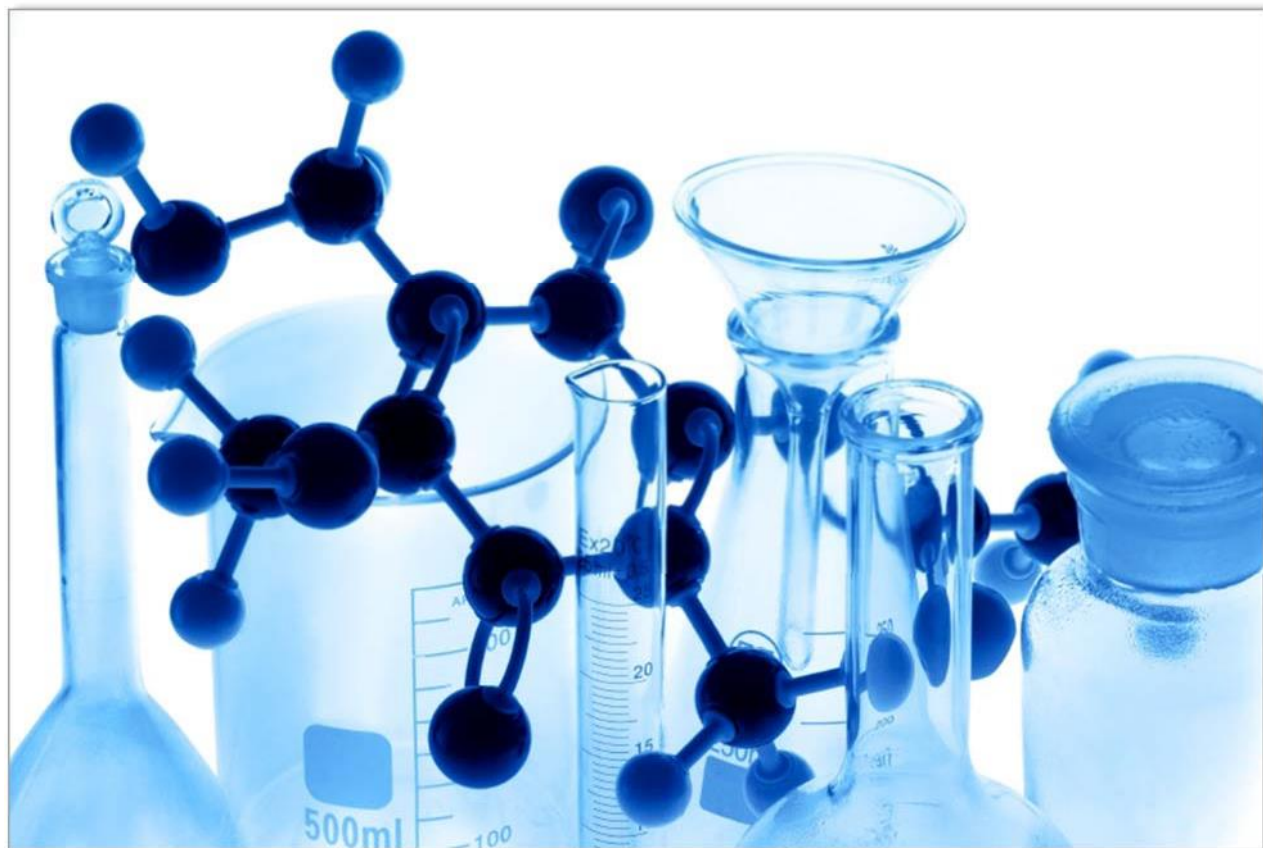


JAIN UNIVERSITY

Declared as Deemed-to-be University u/s 3 of the UGC Act,1956



Master of Science – Chemistry Programme Guide

www.jainuniversity.ac.in

Programme Overview

Master of Science in Chemistry programme aims to provide a high quality education in Chemistry. The interdisciplinary programme is designed to develop academic talent leading to challenging and rewarding professional life. Though the core branches of chemistry such as Organic, Inorganic and Physical are the main focus of the course, other emerging topics, such as Nanotechnology, Environmental Chemistry, Green Chemistry, Industrial Chemistry, Bio-analytical Chemistry, and other interface branches are also added to expose students to new and exciting trends in present day research along with thorough fundamental knowledge of Chemistry.

Programme Name

Master of Science

Programme Code

044

Course Code & Name

4416 – MSc in Chemistry

Degree Awarded

Master of Science

Duration of the Programme

2 years, 4 semesters

Total Credits

101

Eligibility

The minimum qualification required is bachelor's degree from a recognized University/ Institution having Chemistry as a major subject. Those who are due to appear in qualifying examination can also apply.

Medium of Instruction / Examination

English

Study Campus

**Centre for Nano and Material Sciences
Jain University, Jain Global Campus
45th km, NH – 209, Jakkasandra Post
Bangalore - Kanakapura Main Road
Ramanagara District – 562 112**

Programme Advisor

**Dr. Amit Kumar (Associate Professor)
M +91 9620456650**

Programme Highlights

- Scholarships are available for the meritorious students
- As a part of the mandatory six months research project, students will be joining an active research community with an access to the very useful & advanced facilities hosted by CNMS
- CNMS also maintains close collaboration with a number of renowned research Institutions such as IIT's, IISc, CSIR labs and foreign Universities for facilitation of PG research projects
- Advanced training to handle modern sophisticated instruments such as NMR, FESEM, AFM, FTIR, MS, XRD, etc.
- Chance to interact and attend "The Invited talks of the eminent scientists" from national / international Universities / research organizations
- Successful completion of this programme in Chemistry ideally prepares one for a career in scientific laboratories, industries, research institutions or any other public bodies
- In addition, the programme provides an excellent foundation for students wishing to undertake subsequent doctoral research work & competitive exams such as NET, GATE, etc.
- Candidates who excel have the opportunity of being selected for a funded research fellowship leading to a Ph.D. degree

Curriculum

Semester I

- 1 Inorganic Chemistry-I
- 2 Organic Chemistry-I
- 3 Physical Chemistry-I
- 4 Computational Chemistry
Mathematics for Chemists
Environmental and Green Chemistry

5 Learning labs

- Inorganic Chemistry-I

Organic Chemistry-I

Semester II

- 1 Inorganic Chemistry-II
- 2 Organic Chemistry-II
- 3 Physical Chemistry-II
- 4 Spectroscopy-I
- 5 **Learning labs**
Physical Chemistry-I
Organic Chemistry-II

Semester III

- 1 Inorganic Chemistry-III
- 2 Organic Chemistry-III
- 3 Physical Chemistry-III
- 4 Analytical Chemistry
- 5 **Learning labs**
Physical Chemistry-II
Inorganic chemistry-II

Semester IV

- 1 Polymer Chemistry
- 2 Spectroscopy-II
- 3 **Learning lab**
Nano Chemistry
- 4 **Electives (any one)**
Chemistry of Biomolecules
Pharmaceutical Chemistry
Nano Technology
- 5 Project
Presentation & Defence
Comprehensive
Viva-Voce

Career Opportunities

- The programme mainly emphasizes on the development of new synthetic ideologies, analytical techniques and problem solving skills which provides a wide range of employment opportunities
- The placement cell at CNMS supports to secure employment opportunities to the final year students

- The placement cell provides information regarding higher education in India and abroad, job opportunities available in the market through its notice board, emails and brochures
- It also extends its services by offering various trainings to the students on personality development and career development skills, etc.
- On campus recruitment will be organized with top notch pharmaceutical industries, forensic labs, scientific labs, oil and gas/petroleum/chemical industries, Universities, etc.