

Study Campus
JAIN Global Campus
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CHEMISTRY CAREER PROSPECTS

Graduates are hired in the following areas of employment:

Pharmaceutical Companies | Agrochemical Industry | Petrochemical Industry | Toiletry Industry | Chemical Manufacturers | Food Processing Firms | Paint Manufacturing Companies | Plastics Industries | Paper Industry | Educational Institutes | Independent Laboratories | Environmental Law Patent Law Firms | Space Exploration Agencies | Forensic Science Department | Ceramics Industry | Military Systems Department

SOME OF THE GLOBAL RECRUITERS (PARTIAL LIST)



CENTRE FOR
NANO AND
MATERIAL
SCIENCES

#InspireImpact

MSc

Chemistry



Concept & Design, Office of Communications, JAIN (Deemed-to-be University) 25-9042

Awarded **Graded Autonomy** by
University Grants Commission



University Ranked 65th



Ranked 219 among the Asian
University Ranking - Southern Asia 2024



ABOUT JAIN (DEEMED-TO-BE UNIVERSITY)

Established to provide a quality learning experience and entrepreneurial skills, JAIN (Deemed-to-be University) is an educational hub that draws aspiring students from more than 54 countries to India's Silicon Valley - Bengaluru. Spread across five campuses, the University has been consistently ranked among the top private universities in the country by India Today Nielsen Best Universities Survey. Over a decade, the University has made conscious efforts to build its strengths and consolidate its achievements. JAIN (Deemed-to-be University) has also received Graded Autonomy status by University Grants Commission based on its accreditation, given by National Assessment and Accreditation Council (NAAC) with an 'A++' Grade and has been ranked 65th in the NIRF Ranking 2024, under the University category. From academic discoveries to athletic records, from artistic creations to scientific breakthroughs, students at JAIN (Deemed-to-be University) are defining success in many different ways.

ABOUT CNMS

The Centre for Nano and Material Sciences (CNMS), established by JAIN (Deemed-to-be University), offers a vibrant atmosphere to students and faculty with modern laboratories and advanced facilities. It provides a dynamic environment to engage in cutting-edge research, particularly in areas like water and energy. The Centre's team of experienced academics and young researchers focuses on innovations in quantum dot solar cells, biosensors, nanoelectronics, and polymer nanocomposites, contributing significantly to the material sciences.

ABOUT THE PROGRAMME

Master of Science in Chemistry programme, aims to deliver high-quality education focusing on core branches like Organic, Inorganic, and Physical Chemistry, while also introducing emerging topics such as Nanotechnology, Environmental Chemistry, Green Chemistry, Industrial Chemistry, and Bio-analytical Chemistry. The programme is designed to cultivate academic talent for a challenging and rewarding professional life, providing students with a thorough understanding of Chemistry's fundamental principles and exposure to contemporary research trends.

Duration

2 years (4 semesters)

Eligibility

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

Total Credits

80

PROGRAMME HIGHLIGHTS

- Engage in mandatory research with advanced facilities at Centre for Nano and Material Sciences (CNMS)
- Collaborate closely with prestigious institutions like NIT's, CSIR labs, and foreign universities
- Receive advanced training in handling modern instruments (UV-visible, Spectrofluorophotometer, ATR-IR, BET, FESEM, GC, FTIR, MS, p-XRD)
- Interact with and attend talks by eminent scientists from national & international universities and research organisations
- Ideal preparation for careers in scientific laboratories, industries, research institutions, or public bodies
- Establish a solid foundation for doctoral research and competitive exams (NET, GATE, etc.)
- Outstanding candidates may be selected for funded research fellowships leading to a Ph.D. at leading national and international universities

CURRICULUM

SEMESTER I

- Inorganic Chemistry-I
- Organic Chemistry-I
- Physical Chemistry-I
- Analytical Chemistry

Learning Labs

- Inorganic Chemistry-I
- Organic Chemistry-I
- Analytical Chemistry
- Nanochemistry

Project

- Fundamentals of Research in Chemical Sciences

SEMESTER II

- Inorganic Chemistry-II
- Organic Chemistry-II
- Physical Chemistry-II
- Spectroscopy-I

Learning Labs

- Physical Chemistry-I
- Organic Chemistry-II
- Material Science
- Interdisciplinary Chemistry

Project

- PCL I - Research and Entrepreneurship Project I

SEMESTER III

- Spectroscopy-II
- Applied Chemistry-I
- Pharmaceutical and Industrial Chemistry
- Organic Chemistry-III
- Open Elective

Learning Labs

- Physical Chemistry-II
- Inorganic Chemistry-II
- Pharmaceutical Chemistry
- Natural Products

Project

- Designing of the Project

SEMESTER IV

- Chemistry of Biomolecules
- Inorganic Chemistry-III
- Organic and Green Chemistry
- Applied Chemistry-II

Project

- Master Capstone Project
- Advanced Scientific Writing and Communication
- PCL II - Research and Entrepreneurship Project II