MANIPAL UNIVERSITY
JAIPUR

Bachelor of Science (B.Sc)

Chemistry (Hons)

Admission 2024-25

About the program

Bsc (Hons) Chemistry program is a core branch of chemical science which provides a fundamental and advance knowledge about chemical, physical properties of chemical entities along with their applications. The syllabus of program is designed according to the current needs of the society. It is a broad and lively subject in which new ideas tickles out and encourage students as well faculty members to study the structure, functions, behavior and problems of chemical entities. The main objective of the course is to make students well fitted for different chemistry related products and enterprises with a modern global outlook in both govt. and the corporate sectors. The knowledge we gain through study chemistry leads to the production of various medicines for human use, helpful in the treatment of diseases.

More about the Department
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Key Highlights of the Program

- High level teaching focused on outcome-based teaching learning
- Well equipped laboratories with all modern amenities
- Individual Research projects
- International presentations and publications by the students
- Interdisciplinary learning with up to date highly competent syllabus

Prominent Recruiters

- Zen Onco
- Byju's
- Jaro Education
- Canary Agro Chemicals
- Hindustan Zinc Limited

Unique Research and Lab Facilities

- Faculties with PhD from prominent institutions and state-of-the-art research profiles.
- Collaborations with eminent scientist worldwide.
- Thrust areas of research are Nanomaterials, Bio-materials, catalysis, Solar sensitize Dyes and Computational and Theoretical research.
- 5 Fully equipped labs with high end instruments for research.
- The department has accesses to most of the modern systems of material characterization like Field Effect Microscope (FESEM), X-ray Diffraction (XRD), UV-Visible Spectroscopy, Photoluminescence (PL) spectroscopy, Thermo-Gravimetric Analysis (TGA), Fourier Transform Infrared (FTIR) spectroscopy etc.
- UG/PG student's publications in high impact journals.

National and International Collaborations

Collaborations with leading research lab of Government of India and overseas.

Career Opportunities

- Higher Education: Candidate may pursue for higher studies and opt national exams like IIT JAM, IISER, JNU, DU, IISc, TIFR, IITs for M.Sc. and MSc-PhD integrated programs.
- Government opportunities: Junior Scientist/Research Assistant/Lab Officer/Lab Instructor. All Govt jobs after graduation.
- Corporate Opportunities: Pharmaceutical companies (Johnson & Johnson, Pfizer, Sanofi, Merck, GSK (GlaxoSmithKline), AstraZeneca, Panacea Biotech Limited, Dr. Reddy's Laboratories Limited) etc in the R&D laboratories, Cosmetic Industries, Agrochemical Industries, Oil and Paint Industries, Polymer and materials Industries, Clinical Research Associate, Quality Controls and Marketing, IPR.
- Startup and Entrepreneur Opportunities in various chemical, Pharmaceutical and material fields.

The MUJ EDGE (Why MUJ)

- Best in-class infrastructure, including the state-of-the-art research facilities and a modern digital library
- NAAC A+, AICTE, and UGC Accredited Institution
- Research-oriented, well-qualified and internationally renowned faculty
- Well stocked library
- Well-equipped laboratories with ultramodern infrastructural facilities
- Regular invited talks from experts
- Student seminars, project work and guest lectures by eminent speakers
- Placement assistance program
- Regular Industrial exposure to students with emerging technologies in chemical companies
- Participation in technical events, sports and other cultural activities to showcase their talents
- Collaborations with prestigious institutions in India and abroad
- Curriculum based on CSIR-NET and GATE syllabus
- Recruitment opportunity in research project/PhD
- Laboratory infrastructure: FTIR, GC-MS, Fluorometer, CO2 Incubator, HPLC, AAS, Centrifuge and many more.

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Placements Statistics

- Highest package 11 LPA in India.
- UG/PG student go for master's and PhD from Foreign Universities like Bonn University Germany, NUS Singapore, NTU Singapore, South Asian University, Loughborough University UK, University of Melbourne Australia, Imperial College London, Fleming College Ontario, Canada etc. and in IITs, NITs, and Central Universities and other reputed universities in India.

Fee structure

Tution fee (p.a.)	Registration Fee (One Time)	Caution Deposit Refundable (One Time)	Total Course Fees (including Caution Deposit)
97,000	10,000	10,000	3,11,000

(International - USD, Total Fee for 3 Years - 8,250)

Eligibility

The candidate must have passed 10+2 from recognized board or equivalent qualification as recognized by Association of Indian Universities (AIU) or other competent body with science and/or computer science subjects, with minimum 50% marks in aggregate.

Scholarships

- TMA Pai Merit Scholarships
- Rajasthan Merit Scholarships
- Financial Assistance for Sibling(s)
- Scholarship for "Differently- abled" Students
- Scholarships for wards of Martyrs of Defence Personnel / Para Military Forces
- Scholarships for the wards of Single Mother & Orphan Child
- Scholarships for Sports Persons
- Scholarships for students of Higher Semesters

Curriculum (Only Scheme)

The curriculum follows Choice Based Credit System (CBCS) mandated by UGC and regularly updated to meet the demands of the industry and higher education.
The curriculum includes:

- Mandatory Core Courses and Laboratories
- Discipline Specific Elective Courses
- Skill Development Courses
- Ability Enhancement Courses
- Multidisciplinary Generic Elective Courses
- Open Elective Courses
- Projects, Internships, and Seminars

Year	FIRST SEMESTER					
	Course Code	Course Name	L	T	P	C
I	CY1104	Structure, Bonding and Periodicity	3	1	0	4
	CY1106	States of Matter	3	1	0	4
	CY1133	Chemistry Lab-1	0	0	8	4
	CA1170	Fundamental of Computers	1	1	0	2
	CA1175	Fundamental of Computers Lab	0	0	2	1
	CY1003	Environmental Science	3	0	0	3
	LN1106	Communicative English	2	0	0	2
	******	**GE-I	2	1	0	3
	******	**GE-I Lab	-	-	2	1
			14	4	12	24
	Total Contact Hours (L + T + P)		30			

	SECOND SEMESTER					
	Course Code	Course Name	L	T	P	C
I	CY1204	Main group elements-I and Ionic structures	3	1	0	4
	CY1205	Stereochemistry and Reaction Mechanism	3	1	0	4
	CY1206	Thermodynamics and Equilibrium	3	1	0	4
	CY1233	Chemistry Lab-2	0	0	8	4
	******	**GE-II (A)	2	1	0	3
	******	**GE-II (A) Lab	0	0	2	1
	******	**GE-II (B)	2	1	0	3
	******	**GE-II (B) Lab	0	0	2	1
			13	5	12	24
	Total Contact Hours (L + T + P)		30			

(GE: Generic Electives, DSE: Discipline Specific Electives, SEC: Skill Enhancement Course)

	THIRD SEMESTER						FOURTH SEMESTER					
II	CY2104	Main group elements-II and Introduction to Group theory	2	1	0	3	CY2204	Chemistry of transition and inner-transition Metals	3	1	0	4
	CY2105	Hydrocarbons and Halogen Derivatives	2	1	0	3	CY2205	Oxygen containing Derivatives	3	1	0	4
	CY2106	Surface, Solutions, and Mixtures	2	1	0	3	CY2206	Kinetics and Electrochemistry	3	1	0	4
	CY2133	Chemistry Lab-3	0	0	6	3	CY2207	Nuclear and Analytical Chemistry	3	1	0	4
	******	**GE-III (A)	2	1	0	3	CY2233	Chemistry Lab-4	0	0	8	4
	******	**GE-III (A) Lab	0	0	2	1	CY224X	**DSE - I	2	1	0	3
	******	**GE-III (B)	2	1	0	3	CY223X	**DSE - I Lab	0	0	2	1
	******	**GE-III (B) Lab	0	0	2	1	******	Open Elective	2	1	0	3
	CY215*	**SEC - I	2	0	0	2						
	CY215*	**SEC - II	2	0	0	2						
			14	5	10	24			16	6	10	31
	Total Contact Hours (L + T + P)		**29**				**Total Contact Hours (L + T + P) + OE**		**32**			
	FIFTH SEMESTER						**SIXTH SEMESTER**					
III	CY3104	Organometallic and Industrial Chemistry	3	1	0	4	CY3205	Organic Spectroscopy	3	1	0	4
	CY3105	Advanced Stereo Chemistry and Heterocyclic Compounds	3	1	0	4	CY3206	Quantum Chemistry and its Applications	3	1	0	4
	CY3133	Chemistry Lab-5	0	0	8	4	CY3233	Chemistry Lab-6	0	0	8	4
	******	**DSE - II	2	1	0	3	******	**DSE - IV	2	1	0	3
	******	**DSE - III	2	1	0	3	******	**DSE - V	2	1	0	3
	CY3170	Project	0	0	12	6	******	**GE-IV	2	1	0	3
							******	**GE-IV Lab	0	0	2	1
							******	Open Elective	2	1	0	3
			10	4	20	24			14	6	10	25
	Total Contact Hours (L + T + P)		**34**				**Total Contact Hours (L + T + P) + OE**		**30**			

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Admission Process

Application form initiated through our website
admissions.jaipur.manipal.edu

Applicants must submit a completed application form with relevant documents within the due date.

Our counsellors will guide candidates through the admission process, which is as per regulatory requirements.

FAQ

Please visit the FAQ section on our website to know more about the admission process.

Admission Team Contact Details

Hostel Details

For Admission
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MANIPAL UNIVERSITY
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