

# Bachelor of Science (B.Sc)

**Mathematics** (Hons)

Admission 2024-25

# About the program

The objective of B.Sc. (Hons) Mathematics program at Manipal University Jaipur, is to provide quality education to the students. Through qualified teaching professionals, the Department of Mathematics and Statistics though this course nurture and develop employability skills through outcome-based education. This B.Sc. (Hons.) Mathematics aims to develop the required analytical, critical, and application-oriented skills with Mathematical and Statistical tools.

In order to upkeep the high standard of education, the department regularly updates the academic syllabus so that the students remain

well-trained to deal with the constant changes in the field of Mathematics and Statistics. The coursework is designed to be flexible and wide-ranging, incorporating the cutting edge and ensuring that the students have a firm grasp on the core fundamentals.

Department of Mathematics and Statistics was established in 2011 with an objective of offering world-class education and good research environment. The department strives for balance between teaching, research, and student development. With qualified and committed faculty members, department provides quality education to promote research activities in core and allied areas of Mathematics and Statistics. It enables students to excel in the areas of pure as well as applied Mathematics, Statistics and Operations Research.



More about the Department Scan the QR Code



#### **Key Highlights of the Program**

- The Department of Mathematics and Statistics offers degree course in B.Sc. (Hons.) Mathematics.
- This course has been designed in such a way that they meet the global standards of the mentioned programss offered in other national and international universities of repute.
- This course follows the credit base course system with total of 148 credits.
- The course handout of each course explains the Course Outcomes (Co's), program Outcomes (PO's), program Specific Outcomes (PSO's), Assessment Plan, Syllabus, Lecture Plan, and mapping of PO's and PSO's with CO's which provides the better insight of usefulness of courses in respect to the present scenario of employability and skill enhancement.
- Making students to be employed and capable of cross disciplinary collaboration in industry/government sector/higher education/research and development/entrepreneurship.
- The B.Sc. (Hons.) Mathematics program enables students to undertake advanced courses in mathematics, Statistics, Operations Research and their applications.

#### **Prominent Recruiters**

- · BYJUs
- Wipro
- · Infosys
- · Upgrade
- · Deloitte
- · SAP Labs
- Jaro Education
- Aquan Ltd.

- · American Bank Pvt. Ltd.
- · LT Foods Ltd.
- · TCS
- Vedanta
- Motion Education Pvt. Ltd.
- Capgemini
- · JD-Financial analysts

#### **Unique Research and Lab Facilities**

- 431 research papers published in SCOPUS/SCI (National and International Journal) up to Dec 2022
- · Software facilities SPSS, AMOS, MAPLE, Mathematica, Statcraft

#### **National and International Collaborations**

- MUJ has signed over 95 MOUs with Academic Institutions & Industries to provide its students international exposure and job opportunities at global level.
- MoUs with Mathematical Institute of the Serbian Academy of Sciences and Arts.

#### **Career Opportunities**

- Govt. Jobs: Staff selection commission exam for officers at Central government, DRDO and ISRO opportunities, UPSC exam., State Public Service Commission exam.
- Bank exam. (Government and Private banks) for clerk and PO
- · Carrier in IT industry, data scientist, actuarial scientist
- · Post graduation in Mathematics (M.Sc.) applied and industrial
- · Master of Computer Application course (MCA), MBA
- · Higher Studies, India and Abroad

#### The MUJ EDGE (Why MUJ)

- Best in-class infrastructure, including the state-of-the-art research facilities and a modern digital library
- · NAACA+, AICTE, and UGC Accredited Institution
- All faculty are PhD from reputed institutions and collaboration with international researchers



- The Department of Mathematics and Statistics aims to achieve the following objectives:
- Acquire appropriate methods and approaches to study the courses included in both the programs
- Nurture and develop employability skills through outcome-based education
- Help learners gain knowledge and ideas needed to conduct research in various fields of Mathematics and Statistics
- Develop the required analytical, critical, and applicationoriented skills with Mathematical and Statistical tools
- Prepare students to take national and international level examination related to the discipline

#### 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

10 + 2 with minimum 50 % marks in relevant subjects

The candidate must have passed 10+2 or A Level or IB with science and/or computer science subjects, with minimum 50% marks in aggregate

## **Curriculum (Only Scheme)**

h	FIRST SEMESTER									
Year	Course Code	Course Name	L	Т	P	C				
7.5	MA1103	Calculus	3	1	0	4				
	MA1104	Discrete Mathematics Structure	3	1	0	4				
	MA1105	Higher Trigonometry	3	1	0	4				
	CA1170	Fundamentals of Computer	1	1	0	2				
	CA1175	Fundamentals of Computer lab	0	0	2	1				
	CY1003	Environmental Science	2	1	0	3				
	LN1106	Communicative English	1	0	2	2				
	******	GE - I	2	1	0	3				
	*****	GE – I Lab	-	-	2	1				
			15	6	6	24				
	<b>Total Contact</b>	i e	2	7	112					

Course Code	Course Name	L	Т	P	C
MA1203	Differential Equations	3	1	0	4
MA1204	Number Theory	3	1	0	4
MA1205	Abstract Algebra	3	1	0	4
MA1206	Three-Dimensional Geometry	3	1	0	4
******	GE-II (A)	2	1	0	3
*****	GE-II (A) Lab	12	12	2	1
*****	GE-II (B)	2	- 81	0	3
*****	GE-II (B) Lab	3 1 3 1 etry 3 1 2 1 2 2 1	2	1	
		16	6	4	24
Total Contact	Hours (L + T + P)		2	5	



# Curriculum (Only Scheme)

П	THIRD SEMESTER					FOURTH SEMESTER							
	MA2112	Real Analysis	3	1	0	4	MA2211	Multivariate Calculus	3	1	0	4	
	MA2113	Ring & Field Theory	3	1	0	4	MA2212	PDE & System of ODE	3	11	0	4	
	MA2114	Linear Programming Problems	3	1	0	4	MA2213	Linear Algebra	3	1	0	4	
11	MA2115	Data Analysis using R	2	0	0	2	MA2214	Vector Calculus & Statics	3	1	0	4	
	MA2116	Introduction to C Language	2	0	0	2	MA2215	Mathematical Modeling	3	1	0	4	
	*****	GE – III (A)	2	1	0	3	*****	DSE-1	3	1	0	4	
- 1	*****	GE - III (A) Lab	0	0	2	1	*****	Open Elective	2	1	0	3	
1	*****	GE – III (B)	2	-11	0	3		- Indicator Control of				-	
	*****	GE - III (B) Lab	0	0	2	1							
1		0.00	17	5	4	24			20	7	0	27	
	Total Contact Hours (L + T + P) 26				Total Contact Hours (L + T + P) + OE 24+3=2								
H	FIFTH SEMESTER					SIXTH SEMESTER							
	MA3101	Numerical Analysis	2	1	0	3	MA3201	Complex Analysis	3	1	0	4	
1	MA3102	Operations Research	2	1	0	3	MA3202	Riemann Integration & Series of Functions	3	1	0	4	
	MA3103	Dynamics	3	1	0	4	MA3203	Metric Space	3	1	0	4	
	MA3130	Lab on Numerical Analysis	0	0	2	1	******	DSE - IV (A)	2	1	0	3	
	MA3131	Lab on Operation Research	0	0	2	- 1	*****	DSE - IV (B)	2	1	0	3	
- 1	MA3170	DSE - II - Project	0	0	0	6	*****	GE-IV	2	1	0	3	
- 1	*****	DSE - III (A)	2	1	0	3	*****	GE - IV Lab	0	0	2	1	
	*****	DSE - III (B)	2	1	0	3	*****	Open Elective	2	1	0	3	
			11	5	4	24		) Doctors (1991)	17	7	2	25	
П	Total Contact Hours (L + T + P)			2	0		Total Contact Hours (L + T + P) + OE			23 +3 = 26			



**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.

**Admission Team Contact Details** 





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



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

**Hostel Details** 







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