MANIPAL UNIVERSITY
JAIPUR

Bachelor of Science (B.Sc.)
(Honours / Honours with Research) in Mathematics

Admission 2026-27

About the Program

The program is designed in alignment with the National Education Policy (NEP) 2020, which emphasizes flexibility, interdisciplinarity, research-based, and skill-enhancement learning, to promote the holistic development of students in both academic and non-academic spheres. It provides flexibility to move across disciplines and opportunities for students to choose courses of their interest from a wide range of disciplines.

The curriculum encompasses core mathematical areas such as algebra, calculus, real analysis, differential equations, and statistics, complemented by interdisciplinary and skill-based courses. It emphasizes the development of analytical thinking, logical reasoning, and problem-solving skills, along with exposure to computational tools and modern technologies.

The program also integrates value-added courses, skill enhancement modules, and electives from diverse disciplines, encouraging students to broaden their academic perspective.

Overall, the program prepares graduates for higher education, research, teaching, and competitive examinations, as well as careers in emerging fields such as data science, finance, analytics, and information technology, in line with the NEP vision of creating skilled and globally competent professionals.

More about the Department
Scan the QR Code

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Key Highlights of the Program

- **NEP-Based Academic Flexibility:** Structured with multiple entry and exit options, enabling learners to progress at their own pace with recognized qualifications at each stage.
- **Interdisciplinary Approach:** Opportunity to explore courses from allied disciplines such as computer science, physics, and data science.
- **Focus on Analytical & Logical Skills:** Emphasis on developing critical thinking, quantitative reasoning, and structured problem-solving abilities.
- **Integration of Technology:** Training in computational tools and programming languages such as Python, MATLAB, and R for mathematical and data analysis.
- **Research & Innovation Orientation:** Fourth-year research track with dissertation, encouraging independent inquiry and innovation.
- **Skill Enhancement & Value-Added Courses:** Courses aimed at communication skills, scientific writing, and professional development.
- **Career Versatility:** Prepares students for diverse pathways including higher education, research, teaching, government services, and industry roles.
- **Preparation for Competitive Examinations:** Strong foundation for exams such as IIT-JAM, CUET-PG, NET/JRF, and other national-level tests.

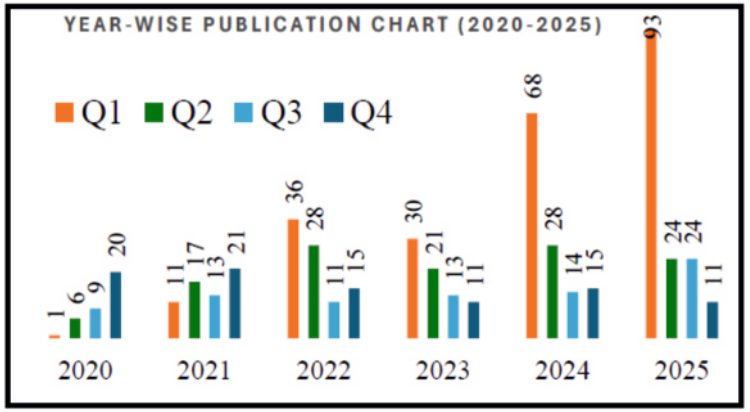
Degree Awarded

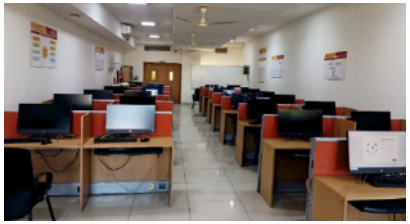
The duration of the program is 4 years with an exit option in the 3rd year.

- Students who opt to exit after completing three years of the program and secure 120 credits, will be awarded a degree of **Bachelor of Science Mathematics.**
- Students who secure a **minimum of 65% marks** (CGPA of 6.5 and above) at the end of 6th semester, with no backlogs, and earn 160 credits after the completion of fourth year, will be awarded a degree of **Bachelor of Science (Honours) Mathematics.** Students must complete 3 courses in the major discipline for 12 credits in lieu of a research project in the last semester.
- Students who secure a **minimum of 75% marks** (CGPA of 7.5 and above) at the end of 6th semester, with no backlogs, and opt to undertake a research project in the final semester, and earn 160 credits including 12 credits from the research project after the completion of fourth year, will be awarded a degree of **Bachelor of Science (Honours with Research) Mathematics**.

Unique Research and Lab Facilities

- The department is supported by highly qualified, research-oriented, and internationally recognized faculty members.
- Faculty members have collectively contributed over 800 high quality research publications in reputed international journals.
- A vibrant research culture is reflected in the presence of 115 highly motivated research scholars currently pursuing their work under faculty supervision.
- The department has successfully awarded 56 Ph.D. degrees, demonstrating its strong research output and academic excellence.
- The department has a dedicated computer lab with a capacity of 30 systems, equipped with advanced software tools such as Mathematica, MATLAB, SPSS, and MAPLE to support simulation, computational research, and data analysis.





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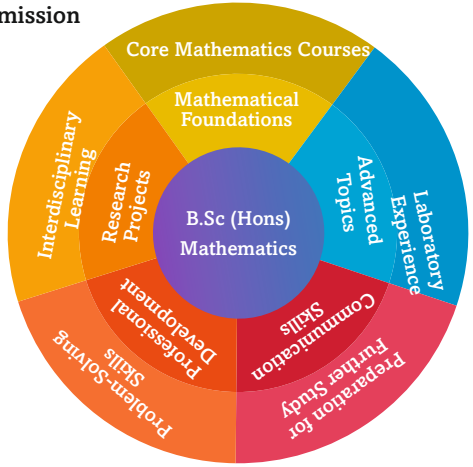
National and International Collaborations

- The department of Mathematics and Statistics has developed a strong international research collaboration with the Nelson Mandela African Institution of Science and Technology (NM-AIST), Tanzania. This collaboration has led to meaningful academic engagements, including joint research activities, co-supervision of Ph.D. scholars, faculty exchange, and the organization of academic activities like conferences, expert lectures and workshops.
- The department continuously seeks to expand its national and international partnerships to promote interdisciplinary research, foster innovation, and provide students and scholars with exposure to diverse academic and industrial environments.

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. (Govt. & Private banks) for clerk and PO
- Carrier in IT industry, data scientist, actuarial scientist
- Post graduation in M.Sc. Mathematics and Mathematics and Computing
- MCA, MBA, Higher Studies, India and Abroad



Fee Structure (Rs.)

Tuition fee (p.a.)	Registration Fee (One Time)	Caution Deposit Refundable (One Time)	Total Course Fees (including Caution Deposit)
97,000	10,000	10,000	4,08,000

(International - USD, Total Fee for 4 Years - 10,900)

Eligibility Criteria

10 + 2 with minimum 60 % 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 60% marks in aggregate

The MUJ EDGE (Why MUJ)

The Manipal Education Group, with its heritage of excellence in higher education for over 71 years, launched Manipal University Jaipur (MUJ) in 2011. MUJ was established on an invitation from the Government of Rajasthan and has been established by an Act (No. 21 of 2011) of State Legislature of Rajasthan as a State Private University as specified by UGC under section 22 of the UGC Act 1956.

Modern Infrastructure:
- World-class infrastructure featuring state-of-the-art research facilities
- Well-equipped laboratories, computational facilities, and digital learning resources
- Access to e-journals, research databases, and advanced software tools.

Academic Excellence:
- Industry and research-aligned curriculum
- Strong foundation in core concepts with emphasis on applications and emerging areas
- Highly qualified faculty with strong research credentials
- Personalized mentoring and academic support.

Research Exposure:
- Early exposure to research through projects, seminars, and workshops
- Guidance for publications, internships, and higher studies.

Global & Industry Connect:
- Collaborations with national and international institutions
- Industry interactions, expert lectures, and internship opportunities.
- National and international collaborations.

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Curriculum (Only Scheme)

B.Sc. (Hons.)- Mathematics_NEP2020

YEAR	FIRST SEMESTER							SECOND SEMESTER						
	Type	Course Code	Course Name	L	T	P	C	Type	Course Code	Course Name	L	T	P	C
I	*MAJ*	MAS1110	Fundamental of Calculus	3	1	0	4	*MAJ*	MAS1212	Ordinary Differential Equations	3	1	0	4
	MIN-1	PHY1101	Mechanics	2	1	2	4	*MIN-2*	PHY1201	Waves and Optics	2	1	2	4
	MD-1	CHY1101	Atomic Structure, Bonding and Periodicity	2	1	2	4	*MD-2*	CHY1201	States of Matter and Molecular Properties	2	1	2	4
	AEC-1	LN1106	Communicative English	2	-	-	2	*AEC-2*	PHY1240	Report writing	1	1	0	2
	SEC-1	MAS1122	Fundamental of Computers	1	0	2	2	*SEC-2*	MAS1221	Logical Reasoning and Competitive Aptitude	1	1	0	2
	VAC-1	CHY1003	Environmental Science	2	-	-	2	*SEC-3*	MAS1222	Introduction to Python Programming	1	-	2	2
	VAC-2	PES1030	Yoga & Wellness	-	1	2	2	*VAC-3*	MAS1223	Ancient Indian Knowledge System	2	-	-	2
		Total		**12**	**4**	**8**	**20**		**Total**		**13**	**4**	**6**	**20**
		Total Contact Hours (L + T + P)							**Total Contact Hours (L + T + P)**					

YEAR	THIRD SEMESTER							FOURTH SEMESTER						
	Type	Course Code	Subject Name	L	T	P	C	Type	Course Code	Subject Name	L	T	P	C
II	*MAJ*	MAS2121	Real Analysis-1	3	1	0	4	*MAJ*	MAS2221	Modern Algebra	3	1	0	4
	MAJ	MAS2122	Vector Calculus	3	1	0	4	*MAJ*	MAS2222	Applied Mechanics: Statics	3	1	0	4
	MIN-3	xxxxx	xxxxx	3	1	0	4	*MAJ*	MAS2223	Real Analysis-2	3	1	0	4
	MD-3	MAS2125	Multivariable Calculus	2	1	0	3	*Project*	MAS2270	Project Based Learning	0	0	0	2
	AEC-3	CHY2170	Scientific Writing	2	0	0	2	*MIN-4*	xxxxx	xxxxx	3	1	0	4
	SEC-4	PHY2140	Basic Instrumentation Skills	2	1	-	3	*AEC-4*	PHY2240	Scientific Translation and Linguistic Competence	2	-	-	2
		Total		**15**	**5**	**0**	**20**		**Total**		**14**	**4**	**0**	**20**
		Total Contact Hours (L + T + P)							**Total Contact Hours (L + T + P)**					

MIN-3	
MAS2123	Elements of Discrete Mathematics
MAS2124	Probability Distributions and Sampling Theory

MIN-4	
MAS2224	Introduction to Number Theory
MAS2225	Statistical Inference

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Curriculum (Only Scheme)

YEAR	FIFTH SEMESTER							SIXTH SEMESTER						
	Type	Course Code	Subject Name	L	T	P	C	Type	Course Code	Subject Name	L	T	P	C
III	*MAJ*	MAS3121	Analytical Geometry of Three-Dimensions	3	1	0	4	*MAJ*	MAS3201	Complex Analysis	3	1	0	4
	MAJ	MAS3122	Elements of Linear Algebra	3	1	0	4	*MAJ*	MAS3221	Introductory Course on PDEs	3	1	0	4
	MAJ	MAS3123	Theory of Riemann Integration and Series of Function	3	1	0	4	*MAJ*	MAS3222	Applied Mechanics: Dynamics	3	1	0	4
	MAJ	MAS3124	Introduction to MATLAB	3	0	2	4	*MAJ*	MAS3223	Linear Programming Problem and Network Scheduling	3	1	0	4
	MIN-5	xxxxxx	xxxxxx	-	-	-	4	*MIN-6*	xxxxxx	xxxxxx	3	1	0	4
			Total	**12**	**3**	**2**	**20**			**Total**	**15**	**5**	**0**	**20**
		Total Contact Hours (L + T + P)							**Total Contact Hours (L + T + P)**					

MIN-5	MAS3125	Information and Coding Theory
	MAS3126	Applied Statistics
	MAS3127	Cryptography

MIN-6	MAS3224	Calculus of Variations and Integral Equations
	MAS3225	Financial Mathematics and Investment Analysis
	MAS3226	Machine Learning and Artificial Intelligence
	MAS3227	Econometrics

YEAR	SEVENTH SEMESTER							EIGHTH SEMESTER						
	Type	Course Code	Subject Name	L	T	P	C	Type	Course Code	Subject Name	L	T	P	C
IV	*MAJ*	MAS4121	A Course on Fluid Dynamics	3	1	0	4	*EC/RP*	****/ MAS4270	*Elective Courses*/ Research Project	0	0	0	12
	MAJ	MAS4122	Computational Numerical Methods	3	0	2	4	*MIN-7*	MAS4227	Research Methodology and Scientific Writing	-	-	-	4
	MAJ	MAS4123	Special Functions and Orthogonal Polynomials	3	1	0	4	*MIN-8*	MAS4228	Numerical Solution of Differential Equations	-	-	-	4
	MAJ	MAS4124	Introduction to Topology	3	1	0	4			**Total**	**0**	**0**	**0**	**20**
	MAJ	MAS4125	Integral Transforms: Laplace, Fourier, and Mellin	3	1	0	4		**Total Contact Hours (L + T + P)**					
			Total	**15**	**4**	**2**	**20**							
		Total Contact Hours (L + T + P)												

Curriculum (Only Scheme)

EC-1/2/3	Code	Course Name	Credits
1	MAS4221	Introduction to Bifurcation Theory	4C, LTP:310
2	MAS4222	Introduction to Celestial Mechanics	4C, LTP:310
3	MAS4223	Computational Methods in Fluid Dynamics	4C, LTP:310
4	MAS4224	Nonlinear Programming	4C, LTP:310
5	MAS4225	Tensor Analysis	4C, LTP:310
6	MAS4226	Theory of Relativity	4C, LTP:310

List of Minor and Multidisciplinary Courses offered by Department of Mathematics & Statistics

Minor (MIN)				Multidisciplinary (MD)			
Course Code	**Course Name**	**SEM**	**Credits**	**Course Code**	**Course Name**	**SEM**	**Credits**
MAS2124	Probability Distributions and Sampling Theory	III	4C, LTP: 310	MAS2125	Multivariable Calculus	III	3C, LTP: 210
MAS2225	Statistical Inference	IV	4C, LTP: 310				
MAS3126	Applied Statistics	V	4C, LTP: 310				
MAS3227	Econometrics	VI	4C, LTP: 310				
MAS3228	Theory of Logical Mathematics	VI	4C, LTP: 310				
MAS4126	Statistical Methods in Biological Sciences	VII	4C, LTP: 310				
MAS4227	Research Methodology and Scientific Writing	VIII	4C, LTP: 310				
MAS4229	Applications of MATLAB	VIII	4C, LTP: 310				

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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

1800 1020 128

Hostel Details

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