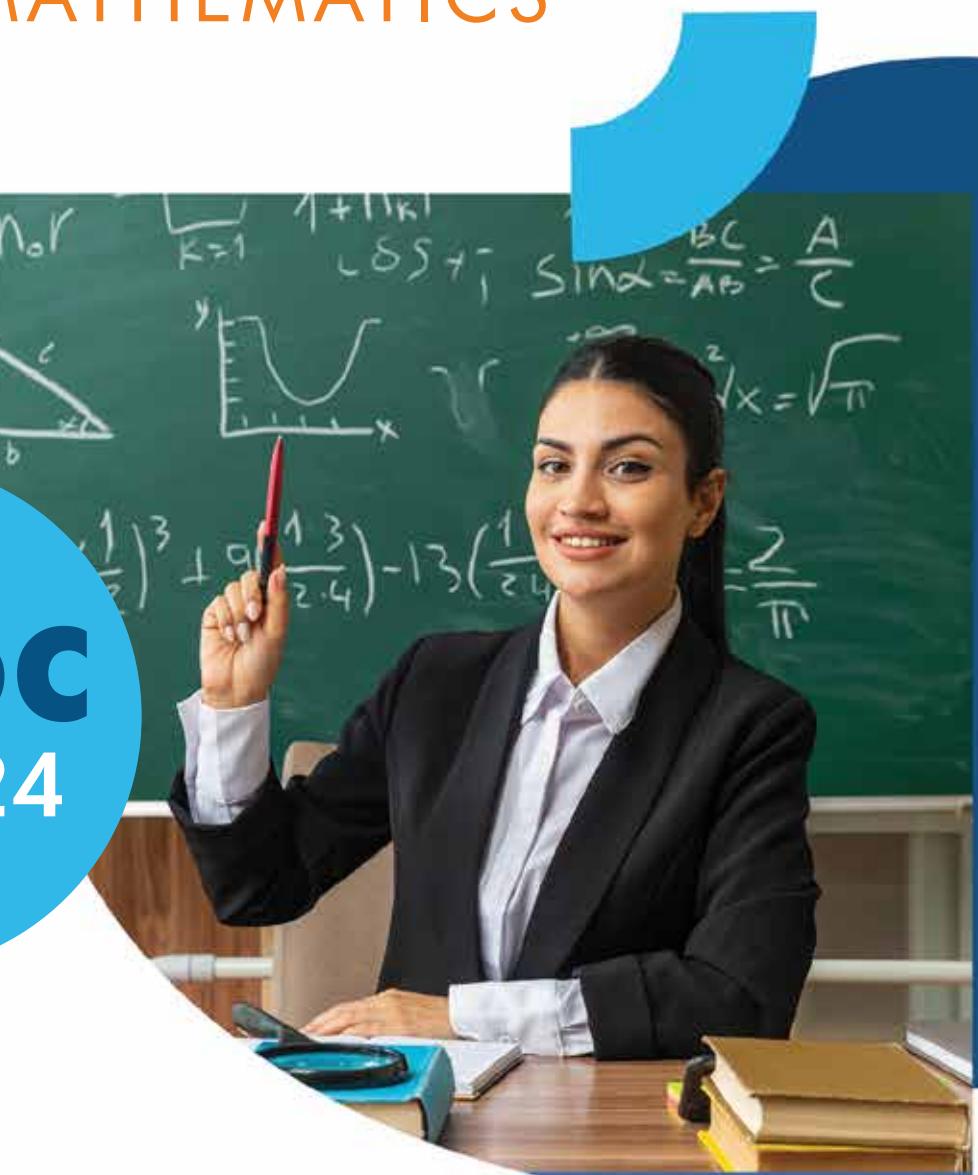




Directorate of Distance & ONLINE EDUCATION

**MASTER OF SCIENCE
MATHEMATICS**

M.Sc
2023-24



MEMBER
OF AIU

More information call us



07969 662 570





Introduction

Master of Science in Mathematics (M.Sc. Mathematics) through online mode is a postgraduate program that focuses on advanced mathematical concepts and theories. This program is designed to help students develop a deep understanding of various mathematical principles and their applications in diverse fields such as engineering, physics, computer science, and finance. The curriculum includes topics such as advanced calculus, algebra, topology, number theory, and probability theory, among others. Students pursuing M.Sc. in Mathematics learn how to use mathematical models to solve real-world problems and develop critical thinking and analytical skills. Graduates of this program are well-equipped to pursue careers in academia, research, data analysis, finance, and many other fields that require strong quantitative skills.

M.Sc. Mathematics students are trained to work independently and collaboratively on research projects, helping them to develop valuable teamwork and communication skills. They are exposed to modern mathematical tools and techniques, such as computer simulations and programming languages, which further enhances their problem-solving abilities. This program also encourages students to apply their knowledge in practical settings, allowing them to develop innovative solutions to complex problems. This is a challenging and rewarding program that provides students with a strong foundation in mathematics and prepares them for a wide range of exciting career opportunities.

Programme's Mission and Objectives

Mission:

- To cater and ensure excellent theoretical and practical training through teaching, counselling, and mentoring with a view to achieve professional and academic excellence.
- To connect with industry and incorporating knowledge for research enhancement.
- To generate, disseminate and preserve knowledge for the benefit and betterment of society.

Objectives:

M.Sc. in Mathematics programme through online mode aims to provide students with advanced mathematical skills and knowledge in areas such as algebra, analysis, topology, geometry, and applied mathematics. The programme aims to develop students' skills in mathematical analysis, problem-solving, logical reasoning, and critical thinking. Additionally, it offers advanced coursework in specialized areas of mathematics such as algebra, topology, geometry, number theory, and applied mathematics. The programme also aims to provide students with the skills required to carry out independent research in mathematics, including skills in literature review, mathematical modelling, data analysis, and technical writing. Furthermore, the program prepares students for further studies in mathematics, including Ph.D. programmes or research-based careers in academia, industry, or government. Ultimately, the programme aims to prepare students for a wide range of career opportunities, including roles in academia, research, industry, finance, technology, and government, by providing them with the necessary skills and knowledge to succeed in these fields.



Instructional Design

The program is divided into four semesters and minimum credit requirement is 76 to get M.Sc. (Mathematics) degree in OL mode from Mangalayatan University. Minimum time period for acquiring M.Sc. (Mathematics) degree will be two years and maximum time period to acquire is 4 years.

SEMESTER - I

| S.No. | Course Code | Course | Credit | Continuous Assessment | Term End Exam | Grand Total |
|--------------|-------------|--------------------------------|-----------|-----------------------|---------------|-------------|
| | | Theory | | MAX | MAX | |
| 1 | MAL-6111 | Abstract Algebra | 4 | 30 | 70 | 100 |
| 2 | MAL-6112 | Classical Mechanics | 4 | 30 | 70 | 100 |
| 3 | MAL-6113 | Partial Differential Equations | 4 | 30 | 70 | 100 |
| 4 | MAL-6114 | Real Analysis | 4 | 30 | 70 | 100 |
| 5 | MAL-6115 | Computer Graphics | 4 | 30 | 70 | 100 |
| 6 | MAP-6111 | Computer Graphics (Prac.) | 1 | 0 | 100 | 100 |
| TOTAL | | | 21 | 150 | 450 | 600 |

SEMESTER - II

| S.No. | Course Code | Course | Credit | Continuous Assessment | Term End Exam | Grand Total |
|--------------|-------------|--------------------------|-----------|-----------------------|---------------|-------------|
| | | Theory | | MAX | MAX | |
| 1 | MAL-6211 | Operations Research | 4 | 30 | 70 | 100 |
| 2 | MAL-6212 | General Topology | 4 | 30 | 70 | 100 |
| 3 | MAL-6213 | Complex Analysis | 4 | 30 | 70 | 100 |
| 4 | MAL-6214 | Numerical Methods | 4 | 30 | 70 | 100 |
| 5 | MAL-6215 | Programming in C | 4 | 30 | 70 | 100 |
| 6 | MAP-6211 | Programming in C (Prac.) | 1 | 0 | 100 | 100 |
| TOTAL | | | 21 | 150 | 450 | 600 |

SEMESTER - III

| S.No. | Course Code | Course | Credit | Continuous Assessment | Term End Exam | Grand Total |
|--------------|-------------|----------------------|-----------|-----------------------|---------------|-------------|
| | | Theory | | MAX | MAX | |
| 1 | MAL-7111 | Research Methodology | 4 | 30 | 70 | 100 |
| 2 | MAL-7112 | Axiomatic Set Theory | 4 | 30 | 70 | 100 |
| 3 | MAL-7113 | Functional Analysis | 4 | 30 | 70 | 100 |
| 4 | MAL-7114 | Integration Theory | 4 | 30 | 70 | 100 |
| 5 | MAL-7115 | Measure Theory | 4 | 30 | 70 | 100 |
| TOTAL | | | 20 | 150 | 350 | 500 |

| SEMESTER - IV | | | | | | |
|---------------|-------------|-------------------------|-----------|-----------------------|---------------|-------------|
| S.No. | Course Code | Course | Credit | Continuous Assessment | Term End Exam | Grand Total |
| | | Theory | | MAX | MAX | |
| 1 | MAL-7211 | Mathematical Statistics | 4 | 30 | 70 | 100 |
| 2 | MAL-7212 | Graph Theory | 4 | 30 | 70 | 100 |
| 3 | MAD-7211 | Project | 6 | 0 | 100 | 100 |
| TOTAL | | | 14 | 60 | 240 | 300 |

Syllabi and Course Materials

Syllabi, PPR and self-learning materials are developed mostly by experienced faculty members of Mangalayatan University in consultation with contents experts and the same will be forwarded to CIQA and Board of Studies/Academic Council/ Executive Council for further suggestions and approval.

Study Material

The study material in digital format (e – content) of the programme shall be supplied to the students unit - wise for every course.

Video Lectures

The Video lectures as prescribed by the UGC Regulation shall be made available on the LMS portal of the University.

Online Counselling Sessions

The online counselling sessions shall be scheduled beforehand by the Subject Coordinator and informed to the learners. There shall be 6 online counselling sessions / contact classes of 2 hours each for a 4 credit course, held on Saturdays and Sundays. In case of 2 credits course there shall be 4 sessions of 2 hours each and in case of 6 credits course there shall be 8 sessions of 2 hours each.

Medium of Instruction

| | |
|-------------------------------|---------|
| Medium of Course Instruction: | English |
| Medium of Examination: | English |

Student Support Systems

The university will appoint programme coordinators, course coordinator and course mentors to facilitate the learners in their learning.

Finally, The university has made appropriate arrangements for various support services including online counselling and resource-oriented-services, evaluation methods for both on and off line modes for easy and smooth services to the students' through online mode.

Procedure for Admissions, Curriculum, Transaction and Evaluation

FEE STRUCTURE

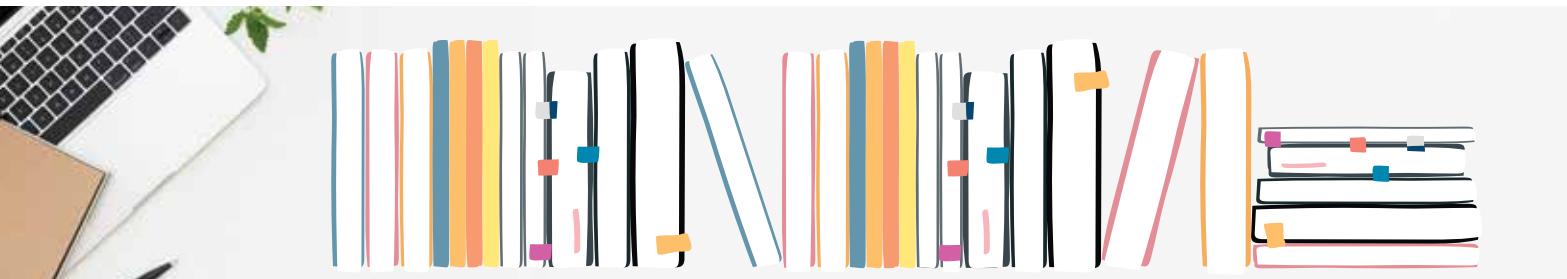
| Name of the Program | Degree | Duration | One Time Reg. Fee | Semester Fee | Exam Fee Per Semester | Full Year Fee | Total Fees |
|---------------------------------|--------|----------|----------------------|-----------------|--------------------------|------------------|---------------|
| Master of Arts (Mathematics) | PG | 2 Years | 1000 | 12000 | 1500 | 27000 | 55000 |
| Total | | | | | | | 55000 |

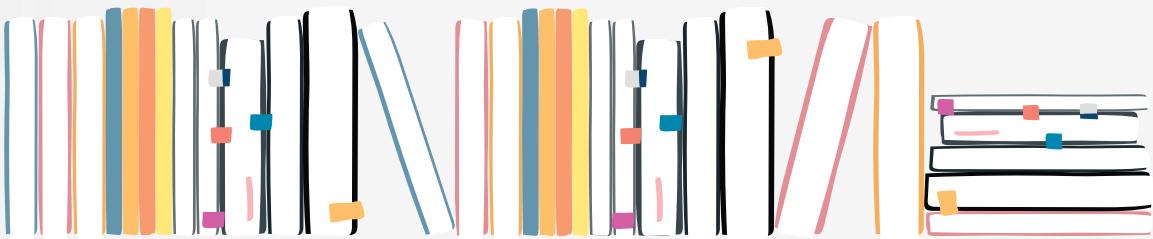
ACTIVITY SCHEDULE

| S.NO. | Name of the Activity | Tentative months schedule (specify months) during year | | | |
|-------|--|--|------------|-------------|------------|
| | | From(Month) | To (Month) | From(Month) | To (Month) |
| 1 | Admission | Jul | Sep | Jan | Mar |
| 2 | Assignment submission (if any) | Sep | Oct | Mar | Apr |
| 3 | Evaluation of Assignment | Oct | Nov | Apr | May |
| 4 | Examination | Dec | Dec | Jun | Jun |
| 5 | Declaration of Result | Jan | Jan | Jul | Jul |
| 6 | Re-registration | Jul | Jul | Jan | Jan |
| 7 | Distribution of SLM | Jul | Sep | Jan | Mar |
| 8 | Contact Programmes (counselling, Practicals.etc.) | Sep | Nov | Mar | May |

CREDIT SYSTEM

| Duration of the Programme | Credits | Name of the Programme | Level of the Programme |
|---------------------------|---------|-----------------------|------------------------|
| 2 to 4 Yrs. | 76 | M.Sc. (Mathematics) | Master's Degree |





Why Online Education?

- Comfortable and Flexible.
- Convenience of attending classes from home.
- Cost Effective.
- Time saving.
- No commuting.
- Monetary benefits- No textbooks required.
- Repeated access to the same lecture.
- Study anytime, anywhere.
- Write proctored exam from home

Admission Process

- Register with Mangalayatan Online Programs
- Pay Registration fees through our available payment gateways
- Upload relevant documents and mark sheets
- Get provisional admission
- Pay semester fees
- Get admission confirmation from University
- Roll number allotted to every student
- LMS id and password creation.

