



DIRECTORATE OF DISTANCE & ONLINE EDUCATION

M.Sc. (CHEMISTRY)

COURSE BROCHURE (2026-27)

INTRODUCTION

The Master of Science (M.Sc.) in Chemistry is a two-year postgraduate programme offered by Mangalayatan University (MUDE). The course curriculum incorporates fundamental concepts of chemistry studies. The semester syllabus consists of six-semester modules that cover the topics of inorganic, organic, analytical, physical, and environmental chemistry. With virtual laboratory access, students can practice core chemistry practicals and build research-oriented learning. The programme equips students with applied scientific principles and complex chemical processes to prepare them for real-world challenges. The semester topics foster students' ability to conduct independent research and interpret scientific data to engage them in scientific communication and prepare them for doctoral research and academic specialization.

MISSION

- ❖ To enhance students' understanding of fundamental and advanced concepts of chemistry to integrate theoretical knowledge and modern scientific practices.
- ❖ To encourage students to cultivate strong analytical and critical thinking to resolve chemical and environmental challenges.
- ❖ To motivate students to build research aptitude and practice data interpretation for modern scientific practices and scientific writing.
- ❖ To develop professionalism and ethical practices to encourage lifelong learning and meaningful contributions in research.
- ❖ To prepare students for specialized roles in chemical industries, healthcare, research organizations, and technology-driven sectors.

OBJECTIVES

The central objective of the M.Sc. in Chemistry (Online Distance Learning Mode) is to offer scientific education that incorporates studies of chemistry. The programme encompasses the conceptual understanding of chemical theories and shapes students' technical skills to prepare presentations, write research papers, and collaborate with peers or teams on certain projects with educational exposure to digital literacy. The course modules are designed to guide students through the advanced laboratory techniques and safety protocols. With this interdisciplinary course, students build competencies to contribute to their role in research and professional development.

INSTRUCTIONAL DESIGN

The programme is segmented into four semesters, and the minimum credit requirement is 80 to get an ODL M.Sc. Chemistry degree from Mangalayatan University. The minimum time period to complete the M.Sc. Chemistry degree programme will be two years, and the maximum time period (extended) is three years to pursue the ODL M.Sc. Chemistry degree.

SEMESTER - I					
S.No.	Course Code	Course Name	Credit Marks	Total Marks	Pass Marks
1.	CHM-6111	Inorganic Chemistry - I	4	100	40
2.	CHM-6112	Organic Chemistry - I	4	100	40
3.	CHM-6113	Physical Chemistry - I	4	100	40
4.	CHM-6114	Analytical Chemistry - I	4	100	40
5.	CHM-6151	Chemistry Lab - I	2	100	40
6.	CHM-6152	Chemistry Lab - II	2	100	40
TOTAL			20	600	240

**SEMESTER - II**

S.No.	Course Code	Course Name	Credit Marks	Total Marks	Pass Marks
1.	CHM-6211	Inorganic Chemistry - II	4	100	40
2.	CHM-6212	Reactions & Mechanisms in Organic Chemistry	4	100	40
3.	CHM-6213	Physical Chemistry - II	4	100	40
4.	CHM-6214	Analytical Chemistry - II	4	100	40
5.	CHM-6251	Chemistry Lab - III	2	100	40
6.	CHM-6252	Chemistry Lab - IV	2	100	40
TOTAL			20	600	240

SEMESTER - III

S.No.	Course Code	Course Name	Credit Marks	Total Marks	Pass Marks
1.	CHM-7111	Biophysical and Computational Chemistry	4	100	40
2.	CHM-7112	Organometallic Chemistry	4	100	40
3.	CHM-7113	Heterocyclic Chemistry and Organic Synthesis	4	100	40
4.	CHM-7114	Research Methodology	4	100	40
5.	CHM-7151	Chemistry Lab - V	2	100	40
6.	CHM-7152	Chemistry Lab - VI	2	100	40
TOTAL			20	600	240

SEMESTER - IV

S.No.	Course Code	Course Name	Credit Marks	Total Marks	Pass Marks
1.	CHM-7211	Green Chemistry	2	100	40
2.	CHM-7213	Materials Chemistry	4	100	40
3.	CHM-7215	Polymer Chemistry	4	100	40
4.	CHM-7251	Chemistry Lab - VII	2	100	40
5.	CHM-7252	Chemistry Lab - VIII	2	100	40
6.	CHM-7291	Project/(Environmental Chemistry + Lab)	6	100	40
TOTAL			20	600	240

SYLLABI AND COURSE MATERIALS

Syllabi and self-learning materials are developed by our experienced faculty members of Mangalayatan University. The course content is approved by CIQA and the Board of Studies/Academic Council/Executive Council of India (UGC).

STUDY MATERIAL

The study material for the programme is developed in a digital format and shall be supplied to the students unit-wise for each course per semester.

ONLINE COUNSELLING SESSIONS

The online counselling sessions shall be scheduled beforehand by the subject coordinator. There shall be 6 online counselling sessions of 1 hour each for a 4-credit course, held on Saturdays and Sundays. For courses with 2 credits, there shall be 4 sessions of 1 hour each; for 6-credit classes, 8 sessions of 1 hour each.

STUDENT SUPPORT SYSTEMS

The university appoints programme coordinators, course coordinators, and course mentors to support learners in their studies. Additionally, the university has made appropriate arrangements for various support services, including online counselling and resource-oriented services and evaluation methods for both online and offline modes, for efficient and smooth assistance to the students through the online mode.

PROCEDURE FOR ADMISSIONS, CURRICULUM, TRANSACTION AND EVALUATION

ACTIVITY SCHEDULE					
S.NO.	Name of the Activity	Tentative months schedule (specify months) during year			
		July Division		January Division	
		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

* These dates are tentative.

FEE STRUCTURE							
Name of the Program	Degree	Duration	One Time Reg. Fee	Semester Fee	Exam Fee Per Semester	Full Year Fee	Total Fees
M.Sc. (Chemistry)	PG	2 Years	1000	12000	1500	24000	55000
Total							55000

CREDIT SYSTEM			
Duration of the Programme	Credits	Name of the Programme	Level of the Programme
2 Yrs.	80	M.Sc. (Chemistry)	Master's Degree



WHY DISTANCE EDUCATION?

- ❖ Convenience of studying classes from home.
- ❖ Cost-Effective.
- ❖ Time saving.
- ❖ No commuting.
- ❖ Monetary benefits- No textbooks required.
- ❖ Study anytime, anywhere.

ADMISSION PROCESS

- ❖ Register with Mangalayatan Distance learning Programmes
- ❖ Pay Registration fees through our available payment gateways
- ❖ Upload relevant documents and mark sheets
- ❖ Get provisional admission
- ❖ Pay semester fees
- ❖ Get admission confirmation from the University
- ❖ Roll number allotted to every student



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