

DIRECTORATE OF DISTANCE & ONLINE EDUCATION

B.SC. (PHYSICS, CHEMISTRY & MATHS)

COURSE BROCHURE
2026-27

NAAC GRADE A+

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INTRODUCTION

The Bachelor of Science (B.Sc.) in Physics, Chemistry, and Mathematics (PCM) discipline is offered by Mangalayatan University (MUDE) through online distance learning mode. Our expert educators designed a course curriculum to equip students with a deep understanding of scientific theory and enhance problem-solving skills. The programme course modules shape students' core competencies to resolve real-world problems. Students can explore their careers in diverse fields of science and choose specialized domains in research, teaching, and other technical fields. Throughout the program, students will explore core subjects in physics, chemistry, and mathematics, along with selected electives. The course structure is designed to develop students' scientific knowledge, research capabilities, and computational skills, with an emphasis on real-world applications and interdisciplinary connections

MISSION

- To encourage students to learn fundamental principles in physics, chemistry, and mathematics to apply and resolve real-world problems.
- To motivate students to explore their careers in research and development and enhance their skills in critical thinking and innovative approaches in science and technology.
- To prepare them for higher studies to take leadership roles in the near future.
- To build students' core competencies in the science and technology field to take potential job roles in the near future.

OBJECTIVES

The primary goal of the B.Sc. PCM (online distance learning mode) programme at Mangalayatan University is to educate students with science education, cultivating their fundamental understanding of quantitative studies, quantitative reasoning, and mathematical concepts. The curriculum comprises industry-relevant knowledge to equip students to overcome challenges and build a career in the technological landscape. The programme entails academic integrity and professional ethics.

INSTRUCTIONAL DESIGN

The B.Sc. PCM programme at Mangalayatan University is segmented into six semesters, with a total of 126 credits to earn the degree. The programme offers flexible online distance learning with a balance of theory and practical coursework. The minimum time period required to complete the degree is three years, and the maximum time period (if extended) is up to four years.

SEMESTER - I					
S.No.	Course Code	Course Name	Credit Marks	Total Marks	Pass Marks
1.	PHB-1111	Mechanics and Wave Motion	4	100	40
2.	CHB-1111	Fundamentals of Inorganic Chemistry	4	100	40
3.	MMB-1111	Differential Calculus	4	100	40
4.	PHB-1151	Physics Lab - I	2	100	40
5.	CHB-1151	Chemistry Lab - I	2	100	40
6.	ENB-1101	English Communication	2	100	40
7.	CSB-1101	Fundamentals of Computer System and Office Automation	2	100	40
TOTAL			20	700	280

SEMESTER - II					
S.No.	Course Code	Course Name	Credit Marks	Total Marks	Pass Marks
1.	PHB-1211	Electricity and Magnetism	4	100	40
2.	CHB-1211	Organic Chemistry	4	100	40
3.	MMB-1211	Integral Calculus	4	100	40
4.	PHB-1251	Physics Lab - II	2	100	40
5.	CHB-1251	Chemistry Lab - II	2	100	40
6.	ENB-1201	Creative Writing	2	100	40
7.	MMB-1201	Logical Reasoning	2	100	40
		TOTAL	20	700	280

SEMESTER - III					
S.No.	Course Code	Course Name	Credit Marks	Total Marks	Pass Marks
1.	PHB-2111	Optics	4	100	40
2.	CHB-2111	Physical Chemistry	4	100	40
3.	MMB-2111	Group Theory	4	100	40
4.	PHB-2151	Physics Lab - III	2	100	40
5.	CHB-2151	Chemistry Lab - III	2	100	40
6.	MMB-2101	Basic Statistics	3	100	40
7.	VAC-2101	Environmental Education	3	100	40
		TOTAL	20	700	280

SEMESTER - IV					
S.No.	Course Code	Course Name	Credit Marks	Total Marks	Pass Marks
1.	PHB-2211	Perspectives of Modern Physics	4	100	40
2.	CHB-2211	Analytical Chemistry - I	4	100	40
3.	MMB-2211	Matrix Theory	4	100	40
4.	PHB-2251	Physics Lab - IV	2	100	40
5.	CHB-2251	Chemistry Lab - IV	2	100	40
6.	ENB-2101	Personality Development	2	100	40
7.	VAC-2201	Understanding India	3	100	40
		TOTAL	20	700	280

SEMESTER - V					
S.No.	Course Code	Course Name	Credit Marks	Total Marks	Pass Marks
1.	PHB-3112	Classical Mechanics	4	100	40
2.	CHB-3112	Analytical Techniques	4	100	40
3.	MMB-3112	Linear Algebra	4	100	40
4.	MMB-3111	Ordinary Differential Equations	4	100	40
5.	PHB-3151	Physics Lab - V	2	100	40
6.	CHB-3151	Chemistry Lab - V	2	100	40
		TOTAL	20	600	240

SEMESTER - VI					
S.No.	Course Code	Course Name	Credit Marks	Total Marks	Pass Marks
1.	PHB-3212	Solid State Physics	4	100	40
2.	CHB-3212	Material Chemistry	4	100	40
3.	MMB-3212	Real Analysis	4	100	40
4.	MMB-3211	Partial Differential Equations	4	100	40
5.	PHB-3251	Physics Lab - VI	2	100	40
6.	CHB-3251	Chemistry Lab - VI	2	100	40
		TOTAL	20	600	240

SYLLABI AND COURSE MATERIALS

Our experienced faculty members of Mangalayatan University develop syllabi and self-learning materials. 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					
		Tentative months schedule (specify months) during year			
		July Division		January Division	
S.NO.	Name of the Activity	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.**

CREDIT SYSTEM			
Duration of the Programme	Credits	Name of the Programme	Level of the Programme
3 Year	120	UG	Bachelor of Science (PCM)

FEE STRUCTURE							
Name of the Program	Degree	Duration	One Time Reg. Fee	Semester Fee	Exam Fee Per Semester	One Year Fee	Total Fees
Bachelor of Science (PCM)	UG	3 Years	1000	12000	1000	27000	79,000
Total							79,000

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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