

Admission & Tuition Fees:

The admission, tuition and examinations fees on the basis of credit for the program are given below:

Admission Fee	Tuition Fees	Exam Fees
(One time only)	(Per credit)	(Per credit)
15,000/-	1,200/-	300/-

Application Procedure:

A candidate should apply for admission to M.Sc. in Mathematics Program on a prescribed application form available at Premier University Information desk, on payment of TK. 500/- (Taka five hundred) only.

Grading System (U.G.C Approved)

Numerical Grade	Letter Grade	Grade Point
80% and above	A+ (A Plus)	4.00
75% to less than 80%	A (A regular)	3.75
70% to less than 75%	A- (A minus)	3.50
65% to less than 70%	B+ (B Plus)	3.25
60% to less than 65%	B (B regular)	3.00
55% to less than 60%	B- (B minus)	2.75
50% to less than 55%	C+ (C Plus)	2.50
45% to less than 50%	C (C regular)	2.25
40% to less than 45%	D	2.00
Less than 40%	F	0.00
	I	Incomplete
	W	Withdrawn



Premier University Academic Building-1

For further information please contact :

Premier University Information Office

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www.facebook.com/PremierUniversityChittagong

N.B : All policies are subject to change.



Premier University

Centre of Excellence for Quality Learning

M.Sc. in Mathematics

We shape your future.

Message

Chittagong is one of the oldest port-cities of the world. There is a tradition that says, Bijoy Singha went to Ceylon from Chittagong a millennium before the birth of Christ. The name 'Ceylon' is derived from the word 'Singhala' bearing Bijoy Singh's name. Chittagong Port had been visited by Marco Polo and Ibn Batuta. In the 17th century, it was the most famous port of the Indian sub-continent. Portuguese traders and adventurers used to call it 'Porto Grande' or the great port, while Hoogli Port was termed 'Porto Picono' or small port. Today, Chittagong is the largest port of Bangladesh. In fact, it is the heart of the body economy of the country.

The scenic beauty of Chittagong is overwhelming and unique. Wordsworth said :

- Two Voices are there
- One is of the sea
- One of the mountain
- Each a mighty one.

Chittagong has both. The impact of these two natural phenomena on the people of Chittagong have made them generous and hospitable. Chittagong has been the abode of various cultures. Here we find the mingling of the Hindus, the Buddhists, the Muslims, the Christians and even Animists. Muslim sufi-saints came to Chittagong and preached their message of love long before the Muslims established their rule over the sub-continent. The Buddhists had a famous University in Chittagong which acquired fame as 'Pundit Bihar'. Sitakunda is one of the holiest places of the Hindus. Till today Chittagong bears the heritage of Portuguese Culture in its many churches and buildings.

Chittagong will always be a place where people will come to seek material wealth and spiritual solace. The region is also renowned for its unique educational, artistic and folk traditions. Its poets, writers and scholars have greatly and immensely contributed to Bangla literature. Also, in our war of liberation and anti-colonial movement Chittagong occupies a special place.

Premier University, though established in the beginning of the 21st century, upholds these rich traditions of Chittagong.

Premier University values most the quality of education it provides. Its M.Sc. in Mathematics Program is one of the finest in the country where eminent teachers take extra care to create and impart knowledge.

Needless to say, your studies in the M.Sc. in Mathematics Program at this university will enrich and equip you for an enlightened and bright future.

Professor Dr. Anupam Sen
Vice Chancellor
Premier University

Foreword:

Premier University got its permission as a university under the Private University Act 1992 from the Ministry of Education, the Government of the People's Republic of Bangladesh on December 05, 2001 and launched its academic programs in January, 2002. The President of the People's Republic of Bangladesh is the Chancellor of Premier University.

Mission:

The overall mission of Premier University is to develop human resources through teaching, training and guidance as well as creating knowledge conducive to the socio-economic realities of developing societies in particular and the rest of the world in general.

Accreditation:

The University has been accredited by the Govt. of Bangladesh and its curricula are duly approved by the University Grants Commission (UGC) of Bangladesh. The President of the People's Republic of Bangladesh is the Chancellor of Premier University.

The Programs:

At present Premier University offers the following programs:

- 1 4-year Bachelor of Business Administration (B.B.A.);
- 2 4-year Bachelor of Science in Computer Science & Engineering (C.S.E.);
- 3 4-year Bachelor of Science in Electrical & Electronic Engineering (E.E.E.);
- 4 4-year Bachelor of Arts (Honors) in English;
- 5 4-year LL.B. (Honors);
- 6 4-year Bachelor of Social Science (Honors) in Economics;
- 7 5-year Bachelor of Architecture (Honors);
- 8 4-year Bachelor of Science (Honors) in Mathematics;
- 9 4-year Bachelor of Science (Honors) in Chemistry;
- 10 4-year B.S.S. (Honors) in Sociology and Sustainable Development;
- 11 2-year Master of Business Administration (M.B.A.);
- 12 1.5 years Executive Master of Business Administration (E.M.B.A.);
- 13 1-year Master of Business Administration (M.B.A.)
- 14 1-year Master of Arts in English;
- 15 1-year Master of Social Science in Economics;
- 16 1-year Master of Laws (LL.M.);
- 17 Master of Science (M.Sc.) in Mathematics;
- 18 CISCO Certified Network Associates (C.C.N.A.) Course.

In near future, Premier University will expand its activities and offer degrees in other branches of knowledge.

The Campus:

Premier university has started its function at two multi-storied buildings located at 'Probortak Circle' northwest to Chittagong Medical College. Adjacent to it on a newly bought huge plot of land, and aesthetically attractive structure has been built to accommodate two

departments: the Department of English Language and the Department of Sociology and Sustainable Development. However, at present Premier University has seven multi-storied buildings at various locations in the city. The Business Faculty, Department of Mathematics, Law Faculty and the Department of Economics are situated in two huge multi-storied buildings constructed by Premier University, which are located at Dampara and Anderkillah respectively.

The Faculty:

The teaching staffs of the University consist of highly qualified full-time teachers having solid academic background in their respective disciplines. It may be noted, many of them have higher degrees from home and abroad. Besides the core faculty, the university assured-services of teachers from University of Chittagong, University of Dhaka, CUET, BUET, other universities, government organizations and research bodies. Occasionally, Premier University will also have visiting professors coming from foreign universities.

The Library:

The library of the university has a rich collection of books, journals, periodicals and research materials. The services of the library include lending of text books, providing assistance to students and rendering reference and bibliographical services. The air-conditioned reading rooms (including seminar libraries) having capacity for 500 readers remain open from 9 a.m. to 9 p.m. for six days a week. The libraries are fully computerized. The students, teachers and research scholars have access to more than one lakh e-books and e-journals.

The Computer Lab:

The students enjoy modern, well-equipped computer labs staffed by a professional systems manager and lab assistants. The students can utilize computer as part of supervised classes by instructors and also on their own to complete assignment in computer and other related courses and also to do research. Premier University has eight computer labs consisting of more than six hundreds computers. As a result, the students have the opportunity to use computers individually.

Master of Science (M.Sc.) in Mathematics Program:

Objectives:

The Department of Mathematics at Premier University has been established in January, 2014. Scientists view Mathematics as a language of nature. Mathematics is one of the oldest subjects which has an application in almost all subjects including science and technology, medicine, commerce and social sciences. It is an exciting time to study mathematics which is opening new horizons in its own areas of studies and other fields. Mathematics develops ability to deal with abstract concepts and

calculations. Department of Mathematics emphasizes on conveying genuine knowledge which is absolutely career focused and pragmatic. Courses offered by the department can make a way through the practical life for a student. Graduates of Mathematics can make their career with attractive remuneration in teaching, banking, administrative jobs in public and private organizations or sectors where mathematical analysis is relevant like forest research institutes, hydrographic organizations, space research institutes, insurance sectors etc. The Department of Mathematics offers both B.Sc. (Honors) in Mathematics and M.Sc. in Mathematics.

Design of the program:

The structure of the M.Sc. in Mathematics program is based on open credit system. The mathematics curriculum consists of foundation, core, integrative and elective courses. The foundation and core courses are designed to equip the students with basic knowledge and skills in the major mathematics and analytical areas, integrative courses make the students capable to correlate interdisciplinary areas and by elective courses students can acquire applicable ability. Master of Science (M.Sc.) in Mathematics at this university has two parts: M.Sc. (Math-Part 1) and M.Sc. (Math-Part 2). M.Sc. (Math-Part 1) is a one-year pre-requisite course for those who do not have B.Sc. (Honors) degree in Mathematics. M.Sc. (Math-Part 2), which is a one-year course, comprising two semesters, is open for students (i) who have successfully completed M.Sc. (Math-Part 1) or (ii) who have successfully completed B.Sc. (Honors) in Mathematics from this university or from any other recognized university. The M.Sc. in Mathematics degree is conferred on students after they have successfully completed M.Sc. (Math-Part 2).

Assignment of Credits:

1. Theoretical Courses: One lecture hour per week, per course, per semester is equivalent to one credit.
2. Laboratory (Lab) Courses: Credits of the Laboratory Courses is half of the Laboratory class hours per week per semester.

Thesis option:

In M.Sc. in Mathematics course students may choose (with the approval of the department) the option for writing a thesis on a topic. The thesis topic will be chosen in consultation with the supervisor. The students who will choose the thesis option have to get approval from the supervisor assigned by the department.

Course Offering Method (Open Credit System):

According to the Open Credit System a bunch of courses based on curriculum of the program are offered to the students. Under the supervision of students' advisor a student is allowed to enroll any course in a semester from the offered set of courses by completing the prerequisite of that course. Total number of credits that a student may enroll in a semester is maximum 22 including recourses.

Course Lists and Codes:

The title of the courses offered in the M.Sc. in Mathematics program along with respective credits are given below:

M.Sc. (Math-Part 1):

Duration: 1 Year
Semester: 2
Total Credits: 32

Course	Title of the Course	Credits
Math-501	Advanced Calculus	3
Math-502	Mechanics	3
Math-503	Math Lab	2
Choose any Three courses from the courses Math-504 to Math-510 with the approval of the Department		
Math-504	Linear Programming	3
Math-505	Discrete Mathematics	3
Math-506	Modern Algebra	3
Math-507	Computer Techniques	3
Math-508	Tensor Analysis & Spherical Trigonometry	3
Math-509	Group Theory	3
Math-510	Fuzzy Mathematics	3
Math-511	Theory of Differential Equations	3
Math-512	Real & Complex Analysis	3
Math-513	Technical Writing & Presentation	2
Math-514	Project	1
Choose any Two courses from the courses Math-515 to Math-520 with the approval of the Department		
Math-515	Applied Mathematics	3
Math-516	General Topology	3
Math-517	Astronomy	3
Math-518	Mathematical Statistics	3
Math-519	Mathematical Modeling in Biology & Health Science	3
Math-520	Mathematical Modeling in Finance & Business Management	3

M.Sc. (Math-Part 2):

Duration: 1 Year
Semester: 2
Total Credits: 32

Course	Title of the Course	Credits
Math-601	Viva-Voce	1
Choose any five courses from the courses Math-602 to Math-611 with the approval of the Department		
Math-602	Advanced Complex Analysis	3
Math-603	Advanced Topology	3
Math-604	Advanced Rings & Module	3

Course	Title of the Course	Credits
Math-605	Special Function & Integral Transform	3
Math-606	Advanced Fluid Mechanics	3
Math-607	Advanced Quantum Mechanics	3
Math-608	Analytical Dynamics	3
Math-609	Lattice Theory	3
Math-610	Lie Group & Lie Algebra	3
Math-611	Geometrical Methods in Mathematical Physics	3
Math-612	Viva-Voce	1
Choose any five courses (For General Group) and choose any three courses along with Math-624(Thesis) (For Thesis Group) from the courses Math-613 to Math-624 with the approval of the Department		
Math-613	Computational Numerical Methods	3
Math-614	Advanced Functional Analysis	3
Math-615	Advanced Number Theory	3
Math-616	Optimization Techniques	3
Math-617	Differential Geometry	3
Math-618	Advanced Mathematical Cosmology	3
Math-619	Advanced Relativity	3
Math-620	Mathematical Modeling in Industry	3
Math-621	Advanced Thermodynamics	3
Math-622	Computational Fluid Dynamics	3
Math-623	Graph Theory	3
Math-624	Thesis	6

Eligibility:

M.Sc.(Math-Part 1): Students who have a 3 years Bachelor (Pass) Degree with Mathematics may apply for admission to M.Sc. (Math-Part 1) program. Students who have equivalent degrees like the above may also apply. Even students having honors degree in subjects other than Mathematics but related to Mathematics, may also apply.

M.Sc.(Math-Part 2): Students having successfully completed M.Sc. (Math-Part 1) will be considered eligible for admission in M.Sc.(Math-Part 2) program. Students who have B.Sc. (Honors) degree in Mathematics from any recognized university may also apply.

In all the cases the required results or grade points are applied according to the guidelines given by the University Grants Commission.