



Premier University

Centre of excellence for quality learning



Premier University Academic Building-1



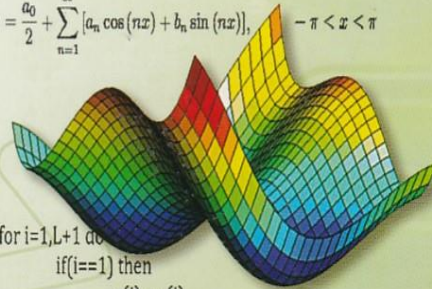
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BSM

We shape your future...

$$s(x) = \frac{a_0}{2} + \sum_{n=1}^{\infty} [a_n \cos(nx) + b_n \sin(nx)], \quad -\pi < x < \pi$$



for $i=1, L+1$ do
if $(i=1)$ then
 $y(i) = c(i)$

Bachelor of Science (Hons.) in Mathematics

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 has 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. In a few years, it has become one of the leading universities of Bangladesh occupying the same ranking in higher education with East West University, North South University, SUST, IUB, CUET, National University and University of Chittagong. (The ranking has been done by the Department of Education, Government of Australia. (<http://aei.dest.govt.au/AEI/CEP/Bangladesh/Listofinstitutions/degaul.htm>).

Premier University values most the quality of education it provides. Its B.Sc (Hons.) 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 B.Sc (Hons.) 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

Genesis :

The Premier University got its permission as a university under the Private University Act 1992 as amended in 1998 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.

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 (BBA);
2. 4-year Bachelor of Science in Computer Science & Engineering (CSE);
3. 4-year Bachelor of Science in Electrical & Electronic Engineering (EEE);
4. 4-year Bachelor of Arts (Honors) in English;
5. 4-year Bachelor of Laws LL.B. (Honors);
6. 4-year Bachelor of Social Science (Honors) in Economics;
7. 5-year Bachelor of Architecture;
8. 4-year Bachelor of Science (Honors) in Mathematics;
9. 4-year Bachelor of Science (Honors) in Chemistry;
10. 4-year B.SS (Honors) in Sociology and Sustainable Development;
11. 2-year Master of Business Administration (MBA);
12. 1.5 years Executive Master of Business Administration (EMBA);
13. 1-year Master of Business Administration (MBA);
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. CISCO Certified Network Associates (CCNA) 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 functions at its own four-storied building located at 'Probortak Circle' northwest to Chittagong Medical College. Adjacent to it, construction of the seven-storied Science and Engineering Faculty building has been completed. The Department of Economics is located at the 3rd & 4th floors of Press Club Bhavan in Jamal Khan. The construction of another huge multistoried building for Business Faculty is also being completed. Another huge multistoried building for Law and Arts Faculty is also on its way to completion.

For further information please contact :

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Fax: +88-031-657892

e-mail : info@puc.ac.bd, web : www.puc.ac.bd

N.B : All policies are subject to change.

For its permanent campus Premier has already procured forty acres of land from Bangladesh Railway at Kumira popularly known as BR Sanitarium, an exquisite beauty spot unparalleled in this region.

The Faculty:

The teaching staffs of the University consist of highly qualified full-time teachers having solid background in their respective disciplines from home and abroad. Besides the core faculty, the university has also invited and assured the services of part-time teachers drawn from 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 on related disciplines. The services of the library include the lending of text books, providing assistance to students and rendering reference and bibliographical services. The air-conditioned reading room with its capacity for 150 readers remains open from 9 a.m. to 9 p.m. for six days a week during semester time. The library is fully computerized.

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.

International linkage:

Academic cooperation and collaboration is currently being negotiated with a number of well-known universities in the USA, UK and Australia.

Bachelor of Science (Hons.) 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, economics and social science. 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. The study of Mathematics at Premier University will enable a student to apply his advanced knowledge of Mathematics in economics, statistics, engineering, physical science, life science, social science, finance, business and accounting.

Design of the program:

The structure of the four-year degree 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.

Program List:

Program	Duration	Semester	Total Theory Courses	Total Lab/Project/Term Paper	Viva-Voce	Total Credit
B.Sc (Hons.) in Mathematics	4 Years	8	45	8	4	160

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.

Project/Term Paper:

The students who will choose the Project/Term Papers have to conduct with the respected teacher assigned by the department.

Degree Requirements:

- Completion of minimum 160 credit hours
- Passing of all courses individually and maintaining a CGPA of 2.25
- Completion of Project/Term paper with a minimum grade of "C"

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 25 including recourses.

Course List and Codes

Crs. Code	Course Title	Credit
Math 101	Higher Algebra and Plane Trigonometry <i>RK</i>	3
Math 102	Set Theory and Logic <i>Spring 2020</i>	3
Math 103	Differential Calculus <i>Spring 2021</i>	3
Math 104	Geometry of Two Dimensions <i>JF</i>	3
Phy 105	Physics-I <i>Fall 2020</i>	3
Eng 106	English Language Course <i>Fall 2020</i>	3
Math 108	Integral Calculus <i>Fall 2020</i>	3
Math 109	Geometry of Three Dimensions <i>Spring 2021</i>	3
Stat 110	Statistics-I <i>Fall 2020</i>	3
Eco 111	Economics <i>Spring 2021</i>	3
Comp 112	Computer Science-I <i>Fall 2020</i>	3
Comp 113	Computer Science Lab-I <i>Fall 2020</i>	1.5
Math 114	Math Lab-I	1.5
Math 115	Viva-Voce	1
Math 201	Advanced Calculus	3
Math 202	Linear Algebra	3
Math 203	Discrete Mathematics	3
Stat 204	Statistics-II	3
Phy 205	Physics-II	3
Comp 206	Computer Science-II	3
Comp 207	Computer Science Lab-II	1.5
Math 208	Math Lab-II	1.5

Course List and Codes

Crs. Code	Course Title	Credit
Math 209	Complex Analysis-I	3
Math 210	Ordinary Differential Equation	3
Math 211	Vector Analysis	3
Math 212	Tensor Analysis	3
Math 213	Real Analysis-I	3
Eng 214	Technical Writing and Presentation	2
Math 215	Math Lab-III	1.5
Math 216	Math Lab-IV	2
Math 217	Viva-Voce	1
Math 301	Complex Analysis-II	3
Math 302	Partial Differential Equation	3
Math 303	Real Analysis-II	3
Math 304	Abstract Algebra	3
Math 305	Numerical Analysis-I	3
Math 306	Statics	3
Math 307	Dynamics	3
Math 308	Linear Programming	3
Math 309	Classical Mechanics	3
Math 310	Topology	3
Math 311	Numerical Analysis-II	3
Math 312	Differential Geometry	3
Math 313	Applied Mathematics	3
Math 314	Math Lab-V	1.5
Math 315	Viva-Voce	1

Choose any five courses from the following courses with the approval of the Department

Crs. Code	Course Title	Credit
Math 401	Number Theory	4
Math 402	Functional Analysis	4
Math 403	Fuzzy Mathematics	4
Math 404	Fluid Mechanics	4
Math 405	Mathematical Modeling in Finance and Business Management	4
Math 406	Theory of Relativity	4
Math 407	Graph Theory	4
Math 408	Difference Equation	4
Math 409	Mathematical Modeling in Economics	4

Crs. Code	Course Title	Credit
Math 410	Project/Term Paper	1
Math 411	Viva-voce	2

Choose any four courses from the following courses with the approval of the Department

Math 412	Mathematical Astronomy	4
Math 413	Operation Research	4
Math 414	Integral Equations	4
Math 415	Rings and Modules	4
Math 416	Mathematical Cosmology	4
Math 417	Quantum Mechanics	4
Math 418	Computational Mathematics	4
Math 419	Mathematical Modeling in Biology	4
Math 420	Group Theory	4

Eligibility:

For admission to 4-Year B.Sc (Hons.) in Mathematics program, candidates must have obtained at least second division/ GPA 2.5 in both SSC (Science) and HSC (Science with Mathematics) or equivalent examinations; or, GPA 6.0 combined but score not less than GPA 2.0 in any individual examination; or, students who have passed at least 5 papers (including Mathematics) in GCE 'O' Level and 2 papers (including Mathematics) in 'A' Level provided that they have at least 'B' grade in four papers and 'C' grade in three papers.

Admission & Tuition Fees :

The following semester fees on the basis of credit will be effective from the session starting in January 2017. Semester fees for students who secured admission prior to January 2017 will remain unchanged. The admission and tuition fees for the program are given below:

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

Application Procedure :

A candidate should apply for admission to BSM 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