

Girijananda Chowdhury University Assam
Course Structure of Bachelor of Mathematics as Major

YEAR – 1

First Semester				
Code	Course	Category of Course	L-T-P	Total Credit
	Algebra And Calculus I	Major/core	3-1-0	4
	Minor	Minor	4-0-0	4
	Minor	Minor	4-0-0	4
	Multidisciplinary - I	MDC	3-0-0	3
	English/MIL/Foreign language	AEC	2-0-0	2
	SEC – I	SEC	3-0-0	3
	VAC - I	VAC	2-0-0	2
TOTAL				22

Second Semester				
Code	Course	Category of Course	L-T-P	Total Credit
	Algebra And Calculus II	Major/core	3-1-0	4
	Minor	Minor	4-0-0	4
	Minor	Minor	4-0-0	4
	Multidisciplinary - II	MD	3-0-0	3
	English/MIL/Foreign language	AEC	2-0-0	2
	SEC - II	SEC	3-0-0	3
	VAC - II	VAC	2-0-0	2
TOTAL				22

EXIT OPTION WITH CERTIFICATION. However, such students who desire to exit after 1 year of study need to undertake a vocational course (4 credits).

YEAR – 2

Third Semester				
Code	Course	Category of Course	L-T-P	Total Credit
	Differential Equations	Major/core	3-1-0	4
	Minor	Minor	4-0-0	4
	Minor	Minor	4-0-0	4
	Multidisciplinary - III	MD	3-0-0	3
	AEC – III	AEC	2-0-0	2
	SEC – III	SEC	3-0-0	3
TOTAL				20

Fourth Semester				
Code	Course	Category of Course	L-T-P	Total Credit
	Complex Analysis	Major/core	4-0-0	4
	Real Analysis I	Major/core	4-0-0	4
	Group Theory	Major/core	2-1-2	4
	Elective I- Sets and Logic/Introduction to Probability	Major/core	4-0-0	4
	AEC – IV	AEC	2-0-0	2
	VAC – IV	VAC	2-0-0	2
TOTAL				20

EXIT OPTION WITH DIPLOMA. However, such students who desire to exit after 2 years of study need to undertake a vocational course (4 credits).

YEAR – 3

Fifth Semester				
Code	Course	Category of Course	L-T-P	Total Credit
	Finite Differences & Vector Calculus	Major/core	4-0-0	4
	Analytic Geometry	Major/core	4-0-0	4
	Ring Theory	Major/core	4-0-0	4
	Elective II- Introduction to Statistics/ Discrete Mathematics	Major/core	4-0-0	4
	Internship	Internship	0-0-8	4
TOTAL				20

Sixth Semester				
Code	Course	Category of Course	L-T-P	Total Credit
	Mechanics	Major/core	4-0-0	4
	Real Analysis II and Metric Spaces	Major/core	4-0-0	4
	Linear Algebra	Major/core	4-0-0	4
	Elective III- Numerical Analysis/ R Programming	Major/core	4-0-0	4
	Elective IV – Operation Research/ Spherical Trigonometry & Astronomy	Major/core	4-0-0	4
TOTAL				20

EXIT OPTION WITH BACHELOR DEGREE. However, such students who desire to exit after 3 years of study will be awarded degree with Single Major and/or Minor /Double Minor) in Discipline(s).

YEAR – 4

Seventh Semester				
Code	Course	Category of Course	L-T-P	Total Credit
	Mathematical Transforms (Laplace & Fourier) and Integral Equations	Major/core	4-0-0	4
	Project I	Major/core	0-0-8	4
	Research Methodology	Major/core	4-0-0	4
OR				
	Elective V: General Topology / Ordinary Differential equation of higher order	Major/core	4-0-0	4
	Elective VI: Advanced Abstract Algebra / Tensor Analysis	Major/core		4
	Minor	Minor	4-0-0	4
	Minor	Minor	4-0-0	4
TOTAL				20

Eighth Semester				
Code	Course	Category of Course	L-T-P	Total Credit
	Graph Theory/ Partial Differential Equations with Lab	Major/core	4-0-0	4
	Fuzzy sets and their applications/ Special Theory of Relativity /Number Theory	Major/core	4-0-0	4
	Theory of Random Processes / Fluid Dynamics/ Mathematics for Data Science	Major/core	4-0-0	4
	Project II	Major/core	0-0-16	8
OR				
	Any two courses (each of credit 4) from the following list: (Continuum Mechanics, General Theory of Relativity, Wave theory, Functional Analysis, Lebesgue Measure, Dynamical System)	Major/core	4-0-0 + 4-0-0	
TOTAL				20

After 4 years of study students will be awarded **DEGREE WITH HONOURS** or **DEGREE WITHOUT RESEARCH** (with Single Minor /Double Minor) in Discipline(s).