

GOUR MAHAVIDYALAYA

DEPARTMENT OF MATHEMATICS



P.O.- Mangalbari, Dist. : Malda. Pin – 732142 (W.B.)
Phone : 03512- 260547; Fax 03512-260547

ACCREDITED BY NAAC
(2nd cycle) B+

E-mail : gour_maha@yahoo.co.in
www.gourmaha.ac.in

B.Sc (Honours) in Mathematics Course Structure under NEP (2024-25 Session)

SEMESTER I & II

Semester	Course Code	Course Name
I	MTM-DC-MJ-101	Algebra
	MTMMJ-SEC-01	To be decided by the department
II	MTM-DC-MJ-201	Calculus & Analytical Geometry

Note: Each course is of 4 credits (75 marks, out of which 25 marks is allotted for Continuous Assessment (CA) and 50 marks is allotted for Semester-End (SE) examination).

SEMESTER III & IV

Semester	Course Code	Course Name
III	MTMMJ-MC-05	Differential Equations
	MTMMJ-SEC-03	Graph Theory
IV	MTMMJ-MC-06	Mechanics
	MTMMJ-MC-07	Numerical Methods & C Programming Language

NOTE: Each Major paper is of 4 credits (50 marks, out of which 10 marks is allotted for Continuous Assessment (CA) and 40 marks is allotted for Semester-End (SE) examination).


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(Dr. A. K. Sarkar)
Principal
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B.Sc (Honours) in Mathematics Course Structure under CBCS (2024-25 Session)

SEMESTER V & VI

Semesters	COURSES					Total Credits	Total Marks
	Discipline Core (DC)	Discipline Specific Elective (DSE)	Generic Elective (GE)	Ability Enhancement Compulsory (AEC)	Skill Enhancement Course (SEC)		
V	DC11 (6)	DSE1 (6)			SEC01 (2)	26	250
	DC12 (6)	DSE2 (6)					
VI	DC13 (6)	DSE3 (6)			SEC02 (2)	26	250
	DC14 (6)	DSE4 (6)					


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B.Sc (Honours) in Mathematics Curriculum Plan under NEP & CBCS (2024-25 Session)

Academic Semesters	COURSES- B.Sc (Honours) in Mathematics								Total Credits	Total Marks
	Discipline Core (DC)	Name of the Courses	Name of the Units	Name of the Teacher	Number of Allotted Classes (Hours)	Duration of the Course (Tentative)	Materials and Resources	Student Success & Evaluation Methods.		
SEM-I	MTM-DC-MJ-101	Algebra	Module-1	MD SAHID ALAM	11+ 1(Exam)	September-6 Classes, November-5 Classes	1. T. Andreescu and D. Andrica, Complex Numbers from A to . . . Z, Birkhauser Boston, 2008. 2. D.C. Lay, S.R. Lay and J.J. McDonald, Linear Algebra and its Applications, 5rd Ed., Pearson, 2014. 3. K.B. Dutta, Matrix and linear algebra, Prentice Hall, 2004.	Assignments, Class Tests, Seminar, Quiz, Group Discussion	4	75
			Module-2	RAKESH SARKAR	11+ 1(Exam)	February-3 Classes, January-5 Classes December-6 Classes				
			Module-3	POLY KARMAKA R	12+ 1(Exam)	November-5 Classes, September-4 Classes				
			Module-4	Dr. TILAK KUMAR PAUL	12+ 1(Exam)	February 2 Classes, January-5 Classes December- 4 Classes				
SEM-II	MTM-DC-MJ-201	Calculus & Analytical Geometry	Module-1	MD SAHID ALAM	11+ 1(Exam)	March-5 Classes, April-6 Classes	1. S.L. Loney, The Elements of Coordinate Geometry,	Assignments, Class Tests,	4	75


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			Module-2	RAKESH SARKAR	11+1(Exam)	June-5 Classes, May-6 Classes	Macmillan and Co., 1895.			
			Module-3	POLY KARMAKAR	11+1(Exam)	April-6 Classes, March-5 Classes	2. G.B. Thomas and R.L. Finney, Calculus, 9th Ed., Pearson, 2005.			
			Module-4	Dr. TILAK KUMAR PAUL	11+1(Exam)	June-6 Classes, May-6 Classes	3. M.J. Strauss, G.L. Bradley and K.J. Smith, Calculus, 3rd Ed., Pearson Education, 2007.			
							4. H. Anton, I. Bivens and S. Davis, Calculus, 10th Ed., John Wiley and Sons Inc., 2012.			
SEM-III	MTMMJ-MC-05	Differential Equations	Module-1	RAKESH SARKAR	6+1(Exam)	July-6 Classes	1. G.F. Simmons, Differential Equations with Applications and Historical Notes, McGraw Hill, 2017.	Assignments, Class Tests, Seminar, Quiz, Group Discussion	4	50
			Module-2	Dr. TILAK KUMAR PAUL	9+1(Exam)	August-9 Classes	2. S.L. Ross, Differential Equations, 3rd Ed., Wiley, 2007.			

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			Module-3	MD SAHID ALAM	9+1(Exam)	November-5 Classes, September -6 Classes	3. C.H. Edwards and D.E. Penny, Differential Equations and Boundary Value Problems Computing and Modeling, Pearson, 2005.			
			Module-4	POLY KARMAKAR	6+1(Exam)	December-6 Classes				
	MTMMJ-SEC-03	Graph Theory	Unit-1	RAKESH SARKAR	12+1(Exam)	July-7 Classes, August-5 Classes	1. J. Clark and D.A. Holton, A First Look at Graph Theory, World Scientific, 2005. 2. D.S. Malik, M.K. Sen and S. Ghosh, Introduction to Graph Theory, Cengage Learning Asia, 2014.	Assignments, Class Tests, Seminar, Quiz, Group Discussion	3	50
			Unit-2	RAKESH SARKAR	11+1(Exam)	September -6 Classes, August-5 Classes				
			Unit-3	RAKESH SARKAR	12+1(Exam)	November-9 Classes, October -3 Classes				
			Unit-4	RAKESH SARKAR	11+1(Exam)	January -2 Classes, December -9 Classes				
SEM-IV	MTMMJ-MC-06	Mechanics	Module-1	RAKESH SARKAR	11+1(Exam)	July-7 Classes, August-4 Classes	1. R.D. Gregory, Classical Mechanics, Cambridge University Press, 2006. 2. K.R. Symon, Mechanics, Addison	Assignments, Class Tests, Seminar, Quiz, Group Discussion	4	50
			Module-2	Dr. TILAK KUMAR PAUL	13+1(Exam)	September-4 Classes, August-9 Classes				

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			Module-3	MD SAHID ALAM	12+ 1(Exam)	September-8 Classes, November-4 Classes	Wesley, 1971. 3. M. Lunn, A First Course in Mechanics, Oxford University Press, 1991.			
			Module-4	POLY KARMAKAR	11+ 1(Exam)	December-8 Classes, November-3 Classes				
	MTMMJ-MC-07	Numerical Methods & C Programming Language	Unit-1	RAKESH SARKAR	12+ 1(Exam)	August-3 Classes, July-9 Classes	1. K.E. Atkinson, An Introduction to Numerical Analysis, John Wiley and Sons, 1978. 2. B. Bradie, A Friendly Introduction to Numerical Analysis, Pearson Education, India, 2007.	Assignments, Class Tests, Seminar, Quiz, Group Discussion	4	50
			Unit-2	Dr. TILAK KUMAR PAUL	11+ 1(Exam)	September-3 Classes, August-8 Classes				
			Unit-3	MD SAHID ALAM	11+ 1(Exam)	November-4 Classes, September-7 Classes				
			Unit-4	POLY KARMAKAR	15+ 1(Exam)	November-9 Classes, December-6 Classes				
	SEM-V	DC11	Advanced Analysis on R & C	Unit-1	POLY KARMAKAR	12+ 1(Exam)	July-7 Classes, August-5 Classes	1. S. Shirali and H.L. Vasudeva, Metric Spaces, Springer Verlag, London, 2006.m 2. S. Kumaresan, Topology of Metric Spaces, 2nd Ed., Narosa Publishing House, 2011.	Assignments, Class Tests, Seminar, Quiz, Group Discussion	6
Unit-2				POLY KARMAKAR	11+ 1(Exam)	November-5 Classes, September -6 Classes				
Unit-3				POLY KARMAKAR	12+ 1(Exam)	July-7 Classes, August-5 Classes				
Unit-4				POLY KARMAKAR	15+ 1(Exam)	August-9 Classes, September -6 Classes				
		DC12	Numerical Methods & C	Unit-1	Dr. TILAK KUMAR PAUL	15+ 1(Exam)	August-9 Classes, September -6 Classes		Assignments, Class	6


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		Program ming Language	Unit-2	Dr. TILAK KUMAR PAUL	12+ 1(Exam)	July-7 Classes, August-5 Classes	1. K.E. Atkinson, An Introduction to Numerical Analysis, John Wiley and Sons, 1978. 2. B.W. Kernighan and D. Ritchie, The C Programming Language, Prentice Hall, 1988.			
			Unit-3	RAKESH SARKAR	15+ 1(Exam)	August-9 Classes, September -6 Classes				
			Unit-4	RAKESH SARKAR	16+ 1(Exam)	August-9 Classes, July-7 Classes,				
	DSE1	Advanced Algebra	Unit-1	MD SAHID ALAM	11+ 1(Exam)	July-7 Classes, August-5 Classes	1. J.B. Fraleigh, A First Course in Abstract Algebra, 7th Ed., Pearson, 2002. 2. M. Artin, Abstract Algebra, 2nd Ed., Pearson, 2011.	Assignments, Class Tests, Seminar, Quiz, Group Discussion	6	50
			Unit-2	MD SAHID ALAM	15+ 1(Exam)	August-9 Classes, September -6 Classes				
			Unit-3	MD SAHID ALAM	11+ 1(Exam)	April-6 Classes, March-5 Classes				
			Unit-4	MD SAHID ALAM	11+ 1(Exam)	June-5 Classes, May- 6 Classes				
	DSE2	Fluid Mechanics	Unit-1	MD SAHID ALAM	11+ 1(Exam)	November-4 Classes, September-7 Classes	1. G.K. Batchelor, An Introduction to Fluid Dynamics, Cambridge University Press, 1967. 2. F. Chorlton, Textbook of Fluid Dynamics, Van Nostrand Co., 1967.	Assignments, Class Tests, Seminar, Quiz, Group Discussion	6	50
			Unit-2	MD SAHID ALAM	12+ 1(Exam)	July-7 Classes, August-5 Classes				
			Unit-3	MD SAHID ALAM	11+ 1(Exam)	June-5 Classes, May- 6 Classes				
			Unit-4	MD SAHID ALAM	12+ 1(Exam)	July-7 Classes, August-5 Classes				
	SEC01	Discrete Mathematics	Unit-1	RAKESH SARKAR	11+ 1(Exam)	November-4 Classes, September-7 Classes	1. .R.P. Grimaldi, Discrete Mathematics and Combinatorial Mathematics, Pearson Educa- tion, 1998. 2. P.R. Halmos, Naive Set Theory, Springer, 1974.	Assignments, Class Tests, Seminar, Quiz, Group Discussion	2	50
			Unit-2	RAKESH SARKAR	12+ 1(Exam)	July-7 Classes, August-5 Classes				
			Unit-3	RAKESH SARKAR	11+ 1(Exam)	June-5 Classes, May- 6 Classes				
			Unit-4	RAKESH SARKAR	11+ 1(Exam)	July-7 Classes, August-5 Classes				


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SEM-VI	DC13	Linear Programming Problems & Game Theory	Unit-1	RAKESH SARKAR	11+ 1(Exam)	June-5 Classes, May-6 Classes	1. M.S. Bazaraa, J.J. Jarvis and H.D. Sherali, Linear Programming and Network Flows, 2 nd Ed., Wiley, 2004. 2. P.K. Dutta, Strategies and Games: Theory and Practice, MIT Press, 1999.	Assignments, Class Tests, Seminar, Quiz, Group Discussion	6	50
			Unit-2	RAKESH SARKAR	11+ 1(Exam)	February 2 Classes, January-5 Classes December- 4 Classess				
			Unit-3	Dr. TILAK KUMAR PAUL	6+ 1(Exam)	January-3 Classes December-3 Classes				
			Unit-4	Dr. TILAK KUMAR PAUL	11+ 1(Exam)	March-5 Classes, April-6 Classes				
	DC14	Computer aided Laboratory(Practical Paper)	Unit-1	RAKESH SARKAR	6+ 1(Exam)	January-3 Classes December-3 Classes	1. B.W. Kernighan and D. Ritchie, The C Programming Language, Prentice Hall, 1988.	Assignments, Class Tests, Seminar, Quiz, Group Discussion	6	50
			Unit-2	Dr. TILAK KUMAR PAUL	7+ 1(Exam)	February 2 Classes, January-5 Classes				
			Unit-3	MD SAHID ALAM	11+ 1(Exam)	March-5 Classes, April-6 Classes				
			Unit-4	POLY KARMAKAR	11+ 1(Exam)	February 2 Classes, January-5 Classes December- 4 Classess				
	DSE3	Point Set Topology	Unit-1	MD SAHID ALAM	11+ 1(Exam)	March-5 Classes, April-6 Classes	1. J.R. Munkres, Topology: A First Course, Prentice Hall of India, 2000. 2. J. Dugundji, Topology, Allyn and Bacon, 1966.	Assignments, Class Tests, Seminar, Quiz, Group Discussion	6	50
			Unit-2	MD SAHID ALAM	11+ 1(Exam)	January-3 Classes December-3 Classes				
			Unit-3	POLY KARMAKAR	7+ 1(Exam)	February 2 Classes, January-5 Classes				
			Unit-4	POLY KARMAKAR	11+ 1(Exam)	February 2 Classes, January-5 Classes December- 4 Classes				
	DSE4		Unit-1	RAKESH SARKAR	11+ 1(Exam)	April-6 Classes, March-5 Classes			6	50

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		Dissertation/Project	Unit-2	Dr. TILAK KUMAR PAUL	6+ 1(Exam)	January-3 Classes December-3 Classes	To be suggested by the guide according to the topic of each candidate.			
			Unit-3	MD SAHID ALAM	11+ 1(Exam)	February 2 Classes, January-5 Classes December- 4 Classes				
			Unit-4	POLY KARMAKAR	11+ 1(Exam)	April-6 Classes, March-5 Classes				
	SEC02	Problem Solving Techniques in Probability & Statistics	Unit-1	RAKESH SARKAR	11+ 1(Exam)	March-5 Classes, April-6 Classes	1. Miller and M. Miller, John E. Freund's Mathematical Statistics with Applications, 7th Ed., Pearson, 2006. 2. S. Ross, Introduction to Probability Models, 9th Ed., Academic Press, 2007. R.B. Ash, Basic Probability Theory, Dover Publications, 2008	Assignments, Class Tests, Seminar, Quiz, Group Discussion	2	50
			Unit-2	Dr. TILAK KUMAR PAUL	11+ 1(Exam)	February 2 Classes, January-5 Classes December- 4 Classes				
			Unit-3	MD SAHID ALAM	11+ 1(Exam)	April-6 Classes, March-5 Classes				
			Unit-4	POLY KARMAKAR	11+ 1(Exam)	June-5 Classes, May-6 Classes				

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