Maulana Azad College
Department of Mathematics
Lesson Plan 2021-22, Undergraduate Mathematics (Honours and General)

Semester	Period of Semester	Tentative Dates of University Exam* (*Follow the latest notification by CU)	Name of the Faculty	Course Code	Paper Name	Brief Description of the Topics	Minimum No. of Lectures
Sem-1 (CC1)	July'21 – Dec.'21	Follow the latest notification by CU	Dr. Nanda Das	CC1-(TH+TU)	Calculus, Geometry & Vector Analysis	Unit-1: Calculus	25+5
						Unit-2: Geometry-2D	10
			Dr. Kartik Chandra Basak			Unit-2: Geometry-3D	20
						Unit-3: Vector Analysis	15
Sem-1 (CC2)			Dr. Babli Saha	CC2-(TH+TU)	Algebra	Unit-1: Complex Number, Theory of Equation, Inequality, Linear Difference	30
						Unit-3: Matrix Algebra, Solution of System of Linear Equations.	15
			Dr. Somnath Bandyopadhyay			Unit-2: Relation, Mapping and Integers.	30
Sem-1 (GE1)			Dr. Somnath Bandyopadhyay	GE1-(TH+TU)	Mathematics-GE1	Unit-1: Algebra-I	10
			Dr. Babli Saha			Unit-2: Differential Calculus-I	20
			Dr. Kartik Chandra Basak			Unit-3: Differential Equation-I	10
			Dr. Nanda Das			Unit-4: Coordinate Geometry	20

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Sem-2 (CC3)	Jan'22 - Jun'22	Follow the latest notification by CU	Dr. Somnath Bandyopadhyay	CC3-(TH+TU)	Real Analysis	Unit-1: Real Numbers	30
						Unit-2: Real Sequence	30
						Unit-3: Infinite Series	10+5
Sem-2 (CC4)			Dr. Babli Saha	CC4-(TH+TU)	Group Theory-I	Unit-1: Group & Subgroup	30
						Unit-2: Cyclic Group	25
						Unit-3: Normal Subgroup	20
Sem-2 (GE2)			Dr. Babli Saha	GE2-(TH+TU)	Mathematics GE2	Unit-1: Differential Calculus-II	15
			Dr. Kartik Chandra Basak			Unit-2: Differential Equation-II	10
			Dr. Nanda Das			Unit-3: Vector Algebra	10
			Dr. Somnath Bandyopadhyay			Unit-4: Discrete Mathematics	25

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Sem-3 (CC5)	July'21 – Dec.'21	Follow the latest notification by CU	Dr. Somnath Bandyopadhyay	CC3-(TH+TU)	Theory of Real Functions	Unit-1: Limit and Continuity of functions	40
Sem-3 (CC5)			Dr. Somnath Bandyopadhyay	CC3-(TH+TU)	Theory of Real Functions	Unit-2: Differentiability of Functions	35
Sem-3 (CC6)			Dr. Babli Saha	CC4-(TH+TU)	Ring Theory & Linear Algebra-I	Unit-1: Ring Theory	35
Sem-3 (CC6)			Dr. Babli Saha	CC4-(TH+TU)	Ring Theory & Linear Algebra-I	Unit-2: Linear Algebra	40
Sem-3 (CC7)			Dr. K. C. Basak	CC6-(TH+TU)	Ordinary Differential	Unit-1: Ordinary Differential Equation	40
Sem-3 (CC7)			Dr. Nanda Das	CC6-(TH+TU)	Ordinary Differential	Unit-2: Multivariate Calculus-I	35
Sem-3 (SEC-A1)			Dr. Nanda Das	SEC-A1-TH	C-Programming Language	History of Computer, Constants, Variables & Data type of C-Program, Decision making and Branching, Control Statements, Array, User defined functions, Library functions.	30
Sem-3 (GE-3)			Dr. Babli Saha	GE3-(TH+TU)	Mathematics-GE3	Unit-1: Integral Calculus	10
Sem-3 (GE-3)			Dr. K.C. Basak	GE3-(TH+TU)	Mathematics-GE3	Unit-2: Numerical Methods	25
Sem-3 (GE-3)			Dr. Somnath Bandyopadhyay	GE3-(TH+TU)	Mathematics-GE3	Unit-3: Linear Programming (Theory)	10
Sem-3 (GE-3)			Dr. Nanda Das	GE3-(TH+TU)	Mathematics-GE3	Unit-3: Linear Programming (Theory)	15

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Sem-4 (CC8)	Jan'22 - Jun'22	Follow the latest notification by CU	Dr. Somnath Bandyopadhyay	CC8-(TH+TU)	Riemann Integration and Series of Functions	Unit-1: Riemann Integration	35
Sem-4 (CC8)			Dr. Somnath Bandyopadhyay	CC8-(TH+TU)	Riemann Integration and Series of Functions	Unit-3: Power Series	5
Sem-4 (CC8)			Dr. Babli Saha	CC8-(TH+TU)	Riemann Integration and Series of Functions	Unit-2: Improper Integral	10
Sem-4 (CC8)			Dr. Babli Saha	CC8-(TH+TU)	Riemann Integration and Series of Functions	Unit-3: Sequence of Functions, Series of Functions and Fourier Series.	25
Sem-4 (CC9)			Dr. K.C. Basak	CC9-(TH+TU)	PDE & Multivariate Calculus-II	Unit-1: Partial Differential Equation.	40
Sem-4 (CC9)			Dr. Nanda Das	CC9-(TH+TU)	PDE & Multivariate Calculus-II	Unit-2: Multivariate Calculus-II	35
Sem-4 (CC10)			Dr. Kartik Chandra Basak	CC10-(TH+TU)	Mechanics	Unit-3: Kinematics of a Particle, Newton Laws of motion and Law of gravitation.	20
Sem-4 (CC10)			Dr. Kartik Chandra Basak	CC10-(TH+TU)	Mechanics	Unit-4: Problems in particle dynamics, Planar motion of a particle, Motion of a particle in 3D.	20
Sem-4 (CC10)			Dr. Nanda Das	CC10-(TH+TU)	Mechanics	Unit-1: Coplanar forces, Force system in space, Friction	15
Sem-4 (CC10)			Dr. Nanda Das	CC10-(TH+TU)	Mechanics	Unit-2: Virtual work, Stability of equilibrium.	10
Sem-4 (CC10)			Dr. Nanda Das	CC10-(TH+TU)	Mechanics	Unit-5: Many particles system: Principle of (i) Linear momentum, (ii) Angular momentum. The Energy Principle.	10
Sem-4 (SEC-B)			Dr. Kartik Chandra Basak	SEC-B-TH	Scientific Computing with Sage Math.	Numeric Computation, Plotting of functions, Programming and Applications.	30
Sem-4 (GE4)			Dr. Babli Saha	GE4-(TH+TU)	Mathematics GE4	Unit-1: Algebra-II (Vector Space)	10
Sem-4 (GE4)			Dr. Somnath Bandyopadhyay	GE4-(TH+TU)	Mathematics GE4	Unit-1: Algebra-II (Group Theory, Ring and Field)	10
Sem-4 (GE4)			Dr. Nanda Das	GE4-(TH+TU)	Mathematics GE4	Unit-2: Computer Science and Programming.	15
Sem-4 (GE4)			D. K. C. Basak	GE4-(TH+TU)	Mathematics GE4	Unit-3: Probability and Statistics	25

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Sem-5 (CC11)	July'21 – Dec.'21	Follow the latest notification by CU	Dr. Kartik Chandra Basak	CC11-(TH+TU)	Probability & Statistics	Unit-1: Basic theory, Distribution-I, Expectation-I.	20
						Unit-2: Distribution-II, Expectation-II.	15+5
						Unit-3: Convergence in Probability.	5
			Dr. Nanda Das			Unit-4: Sampling Distribution, Estimation of Parameters.	15
						Unit-5: Statistical Hypothesis.	15
Sem-5 (CC12)			Dr. Somnath Bandyopadhyay	CC12-(TH+TU)	Group Theory-II & Linear Algebra-II	Unit-1: Group Theory	35
			Dr. Babli Saha			Unit-2: Linear Algebra	40
Sem-5 (DSE-A1)			Dr. Nanda Das	DSE-A1 (TH+TU)	Bio Mathematics	Unit-1: Math. Biology and Modelling process.	25
						Unit-2: Activator and Inhibitor system model.	30
						Unit-3: Discrete models.	15+5
Sem-5 (DSE-B1)			Dr. Babli Saha	DSE-B1 (TH+TU)	Linear Programming & Game Theory	Unit-1: Formulation and Basic theory of LPP.	15
						Unit-2: Simplex method, Two-phase method.	20
			Dr. Somnath Bandyopadhyay			Unit-3: Duality Theory and applications.	10
						Unit-4: Transportation and Assignment problems and Game Theory.	30

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Sem-6 (CC13)	Jan'22 - Jun'22	Follow the latest notification by CU	Dr. Babli Saha	CC13-(TH+TU)	Metric Space & Complex Analysis	Unit-1: Metric Space	40
						Unit-2: Complex Analysis	35
Sem-6 (CC14)			Dr. Kartik Chandra Basak	CC14-(TH)	Numerical Methods	Unit-1: Error & Numerical Algorithms	5
						Unit-2: Approximation and Interpolation	15
						Unit-3: Differentiation and Integration.	10
						Unit-4: Solution of Transcendental Equations.	10
						Unit-5: Solution of linear system of equations.	10
			Dr. Nanda Das			Unit-6: Solution of ODE	5
				CC14-P	Numerical Methods Lab	Using C Programming (Computer Lab)	20
Sem-6 (DSE-A2)			Dr. Nanda Das	DSE-A2	Fluid Statics & Elementary Fluid Dynamics	Unit-1: Introduction and Fundamental Concepts.	20
						Unit-2: Hydrostatics and Gas	25
			Dr. Kartik Chandra Basak			Unit-3: Kinematics of Fluid	15
						Unit-4: Conservation Equations.	15
Sem-6 (DSE-B2)			Dr. Somnath Bandyopadhyay	DSE-B2	Point Set Topology	Unit-1: Topological Space, basis up to isometry and metric invariants.	35
						Unit-2: First Countability, etc. up to Heine's continuity criterion.	15
						Unit-3: Connected Spaces, etc upto Bolzano- Weierstrass property of matric space	25