# <u>I – Academic Planner</u>

A. Teaching Plan (Year: August 2021 Semester: Odd)

Teacher's Name: Neha Agrawal Department: Mathematics

S. No	UPC	Paper Name	Core/AECC/G E/SEC	Topic/Unit	Start Date	End Date
1.	32357501	Numerical Analysis (B.Sc. (Hons.)	DSE	Convergence, Root finding Techniques, System of Equations	20 August' 2021	22 September' 2021
		Mathematics Vth Semester)		Interpolation, Finite Difference operators	23 September' 2021	09 October'2021
				Differentiation, Integration, Euler's Method, Runge- Kutta Methods	18 October'2021	15 November' 2021
2.	42353328	Computer Algebra Systems (B.Sc. (Prog.)	SEC	Introduction to CAS and Graphics, computing and Plotting, Animating plots	16 August' 2021	10 October' 2021
		Physical Sciences IIIrd Semester)		Matrices, minors and Cofactors, Rank and nullity of matrix Diagonalization	11 October' 2021	8 December' 2021
3.	32355101	Calculus (B.A./ B.Sc. (Hons.) other than Mathematics Ist Semester)	GE	Derivative tests, Limits, Asymptotes, Graphs of Functions, L' Hopital Rule Volumes of solids by Disk, Washer and Shell Methods, Lengths of Curves, Surface area of Revolution	22 November, 2021	29 January' 2022
				Conics, Tracing of Conics, Polar Coordinates Vector Valued Functions, Functions of Several Variables, Partial Derivatives and Continuity, Directional Derivatives, Tangent Plane and Normal Lines	30 January'2022	10 March' 2022

### Teaching Plan (Year: January 2022 Semester: Even)

Teacher's Name: Neha Agrawal Department: Mathematics

S. No	UPC	Paper Name	Core/AECC/ GE/SEC	Topic/Unit	Start Date	End Date
1.	42351211  Calculus and Core Differentiation Matrices (B.Sc. Analytical Chemistry  Graphs of simple functions, limits and continu Differentiation Taylor's Theorem, Maclaurin's series Partial Derivatives, level curves,		Taylor's Theorem, Maclaurin's series	7 April' 2022	5 June' 2022	
		IInd Semester)		Row reduction, echelon forms, rank Of matrix, eigenvectors, diagonalization	6 June' 2021	10 July' 2022
				Complex numbers, Fundamental theorem of algebra, De' Moivre's Theorem	11 July' 2022	25 July' 2022
2.	42357602	Probability Theory and Statistics	DSE	Sample space, random variables, expectation, moment generating function, discrete and continuous random variables	01 January' 2022	16 February' 2022
		(B.Sc. (Prog.) Physical Sciences VIth Semester)		Joint distributions, expectation and variance, Conditional distribution	17 February'2022	12 March' 2022
				Independent random variables, Central limit theorem, Chebyshev's theorem	21 March'2022	27 April' 2022
3.		Computer Algebra Systems and Related Softwares	SEC	Introduction to CAS and Applications, Plotting and Animating, Tab le, Combining Graphics Matrices, Cofactors, System of Equations, Diagonalization	03 January' 2022	16 February' 2022
	32353401	(B.Sc. (Hons.) Mathematics IVth Semester)		R as calculator, Types and Structure of data, data frames, matrices, lists Summary commands, Histograms, Scatter Plots, bar charts, line charts	17 February' 2022	27 April' 2022

## B. FDP/Seminar/Workshops/Lectures to be attended and/or to be conducted by Teachers

Event Topic		
Type / Nature (FDP/Webinar/Workshop etc.)		
Organizing In-charge		
Details regarding invited Resource Person		
Nature of Participation (e.g. Invited Speaker, Participant etc.)		
Date/s	Timing/s	Mode

### C. Internal Assessment: House Exam (Test/Presentation etc.) & Assignment\*

Course Code	Course Name	Unique Paper Code	Topic Name	Day and Date	Date/s of Exhibiting the Assessment Sheet to students, Discussing the marks, Returning/Retaining
563	B.Sc. (Hons.) Mathematics Vth Semester	32357501	Root finding and System of Equations, interpolation, finite difference operators	22 October'2021	11 November' 2021
582	B.Sc. (Prog.) Physical Sciences IIIrd Semester	42353328	Graphics, computing and Plotting, Animating plots	15 October' 2021	1 December' 2021
	Calculus (B.A./ B.Sc. (Hons.) other than Mathematics Ist Semester)	32355101	Volumes of solids, Lengths of Curves, Surface area of Revolution	10 February' 2022	20 February' 2022

Course Code	Course Name	Unique Paper Code	Topic Name	Day and Date	Date/s of Exhibiting the Assessment Sheet to students, Discussing the marks, Returning/Retaining
563	B.Sc. (Hons.) Mathematics IVth Semester	32353401	Data Analysis with R, Data Frames, Matrices and Lists	2 April' 2022	19 April' 2022

582	B.Sc. (Prog.) Physical Sciences VIth Semester	42357602	Basic Probability Theory Discrete and Continuous Distributions	23 March' 2022	01 April' 2022
585	B.Sc. Analytical Chemistry IInd Semester	42351211	Limits, Differentiation, Graphs of Functions	04 July' 2022	13 July' 2022

<sup>\*</sup>Marks of the Internal Assessment to be submitted to the College 15 days before the last working day of every semester

#### D. Organization of Department/College Society Meetings by Staff Advisor/Convener

Department/Society	Meeting Date	Purpose

#### E. College Functions

College Function	Function Date	Role to be played