

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI**COURSE PLAN (June - November 2026)****Department : Mathematics****Name of the Faculty : Dr. Benazir Obilia. X. A****Course Title : MATRICES AND ITS APPLICATIONS USING MATHCAD****Course Code : 25MC/GE/MA22****Shift : II****COURSE OUTCOMES (COs)**

COs	Description						CL
CO1	recall fundamental matrix concepts, MATHCAD features, and basic applications						K1
CO2	explain matrix properties, MATHCAD functionalities, and their applications						K2
CO3	apply matrix techniques, use MATHCAD for calculations, visualizations, and transformations						K3
Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Jun 15 – 22, 2026 (Day Order 1- 6)	1	Fundamentals of Matrices 1.1 Introduction 1.2 Diagonalisation of n×n Matrices Possessing Distinct Eigen Values	K1-K3	2	CO1-3	Lecturing Learning by doing problems	Questioning

Jun 23 – July 1, 2026 (Day Order 1- 6)	1	Fundamentals of Matrices 1.2 Determinants of $n \times n$ Matrices	K1-K3	2	CO1-3	Lecturing Learning by doing problems	Questioning
July 2 – July 8, 2026 (Day Order 1- 6)	1	Fundamentals of Matrices 1.2 Inverse of $n \times n$ Matrices	K1-K3	2	CO1-3	Lecturing Learning by doing problems	Slip Test
July 9 – 16, 2026 (Day Order 1- 6)	1	Fundamentals of Matrices 1.2 Characteristic Equation of a $n \times n$ Matrix- Evaluation of Eigen Values and Eigen Vectors for a $n \times n$ Matrix	K1-K3	2	CO1-3	Lecturing Learning by doing problems	Questioning
July 17 – 24, 2026 (Day Order 1- 6)	1	Fundamentals of Matrices 1.2 Evaluation of Eigen Values and Eigen Vectors for a $n \times n$ Matrix	K1-K3	2	CO1-3	Lecturing Learning by doing problems	Questioning & III Component -1 ASSIGNMENT Unit 1 (10 marks)
July 25 – 28, 2026 (Day Order 1- 3)	2	Mathematical Software: MATHCAD 2.1 Creating Mathcad Worksheets: Working with Math, text regions.	K1-K3	2	CO1-3	Demonstration Hands on session	Questioning

July 29 – Aug 3, 2026	C.A. Test - I						
Aug 4 - 6, 2026 (Day Order 4 - 6)		No Class					
Aug 7 – 14, 2026 (Day Order 1- 6)	2	Mathematical Software: MATHCAD 2.2 Computational Features: Calculations – Operators – Built-in functions	K1-K3	2	CO1-3	Demonstration Hands on session	Questioning
Aug 17 - 24, 2026 (Day Order 1- 6)	2	Mathematical Software: MATHCAD 2.2 Vectors, Matrices and Data Arrays	K1-K3	2	CO1-3	Demonstration Hands on session	Questioning
Aug 25 – Sep 2, 2026 (Day Order 1- 6)	2	Mathematical Software: MATHCAD 2.3 Symbolic Calculations	K1-K3	2	CO1-3	Demonstration Hands on session	Questioning
Sep 3 – 11, 2026 (Day Order 1- 6)	2	Mathematical Software: MATHCAD 2.4 Graph drawing	K1-K3	2	CO1-3	Demonstration Hands on session	Questioning & III Component -2 Practical test- Unit 2 (25 marks)
Sep 15-17, 2026 (Day Order 1 - 3)	3	Applications of Matrices 3.1 Computer Graphics:	K1-K3	2	CO1-3	Group Discussion Presentation	Questioning

