STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI

COURSE PLAN (June - November 2026)

Department : **Mathematics**

Name of the Faculty : **Dr. Teresa Arockiamary S**

Course Title : **Celestial wonders**

Course Code : **23MT/GE/CW22**

Shift : **1**

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	acquire some basic knowledge in astronomy	K1
CO2	classify the reasons behind the celestial events	K2
CO3	examine and critique the expansive and dynamic nature of our universe	K3

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Jun 15 – 22, 2026 (Day Order 1- 6)	1	**Unit 1 Celestial Sphere and Diurnal Motion**	K1-K3	2	CO1-3	Lecture	Questioning & interaction

		1.1 Celestial Sphere 1.2 Diurnal Motion – Celestial Axis and Equator 1.3 Celestial Horizon					
Jun 23 – July 1, 2026 (Day Order 1- 6)	1	**Celestial Sphere and Diurnal Motion** 1.4 Zenith and Nadir – Celestial Meridian 1.5 Cardinal Points – Different Hemispheres	K1-K3	2	CO1-3	Lecture Learning by doing	Questioning & interaction Group work
July 2 – July 8, 2026 (Day Order 1- 6)	1	**Celestial Sphere and Diurnal Motion** 1.6 Visible and invisible Hemispheres 1.7 Declination circles, verticals 1.8 Rising and Setting	K1-K3	2	CO1-3	Group discussions	Questioning & interaction Slip test
July 9 – 16, 2026 (Day Order 1- 6)	1	**Celestial Sphere and Diurnal Motion** 1.9 Transit or Culmination	K1-K3	2	CO1-3	Lecture Presentations	Questioning & interaction

		1.10 Annual Motion of the Sun – First Point of Aries, First point of Libra, Equinoxes and Solstices					
July 17 – 24, 2026 (Day Order 1- 6)	1 & 2	**Celestial Sphere and Diurnal Motion** 1.11 Circumpolar Stars **Unit 2 The Stellar Universe** 2.1 The Milky Way Galaxy 2.2 Zodiacal Constellations	K1-K3	2	CO1-3	Lecture Group presentations	Questioning & interaction III Component Quiz Unit 1 10 Marks
July 25 – 28, 2026 (Day Order 1- 3)	2	**The Stellar Universe** 2.3 Stars – Double Stars, Multiple Stars and variable stars	K1-K3	2	CO1-3	Lecture Group discussions	Questioning & interaction
July 29 – Aug 3, 2026	**C.A. Test - I**						
Aug 4 - 6, 2026 (Day Order 4 - 6)				-			

Aug 7 – 14, 2026 (Day Order 1- 6)	2	**The Stellar Universe** 2.3 Stars – Double Stars, Multiple Stars and Variable Stars **Planetary Phenomena** 2.4 Direct Motion and Retrograde Motion 2.5 Stationary Points	K1-K3	1	CO1-3	Lecture presentations	Questioning & interaction
Aug 17 - 24, 2026 (Day Order 1- 6)	2	**The Solar System** 2.6 Sun, Planets, Comets, Meteors and Meteoroids	K1-K3	2	CO1-3	Lecture Field trip to Birla planetarium	Questioning & interaction
Aug 25 – Sep 2, 2026 (Day Order 1- 6)	2 & 3	**The Solar System** 2.7 Space Probes **Unit 3 Moon and Eclipses** 3.1 Elongation – Conjunction, Opposition, Quadratures	K1-K3	2	CO1-3	Lecture presentation	**I**II Component Group Presentation Unit 2 15 Marks

Sep 3 – 11, 2026 (Day Order 1- 6)	3	3.2 Daily Motion of the Moon – Age of Moon 3.3 Phase of Moon (definition only) – Successive Phases of Moon	K1-K3	2	CO1-3	Lecture Preparing models	Questioning & interaction
Sep 15-17, 2026 (Day Order 1 - 3)	3	3.4 Moon Exhibits the same side to the Earth 3.5 Surface Structure of Moon	K1-K3	2	CO1-3	Guest Lecture Learning by doing	Questioning & interaction
Sep 18 –23, 2026	**C.A. Test - II**						
Sep 24 - 28, 2026 (Day 4 – 6)				-			
Sep 29 – Oct 7, 2026 (Day Order 1 - 6)	3	3.6 The Tides – Tsunami 3.7 Types of Eclipses – Lunar and Solar Eclipse (no derivations), Duration of a Solar Eclipse	K1-K3	2	CO1-3	Presentations	Group work C A test Unit 2 & 3 25 marks
Oct 8 - 14, 2026 (Day Order 1 - 6)	3	3.8 Importance of	K1-K3	2	CO1-3	Group	Group work

		Total Solar Eclipses 3.9 Comparison of Solar and Lunar Eclipses				discussions	
Oct 15 - 21, 2026 (Day Order 1- 4)	**REVISION**						