

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI

Course Schedule: June - November 2024

Department : Mathematics
Name/s of the Faculty : Dr. Fancy V. F.
Course Title : Celestial Wonders
Course Code : 19MT/GE/CW22
Shift : I

Week & No. of hours	Units & Topics	Teaching Methodology	Text & References	Method of Evaluation
Jun 19 – 26, 2024 (Day Order 1 - 6) 2 hours	Unit 1: Celestial Sphere and Diurnal Motion 1.1 Celestial Sphere 1.2 Diurnal Motion – Celestial Axis and Equator 1.3 Celestial Horizon 1.4 Zenith and Nadir - Celestial Meridian	Lecture, Demonstration using models	Kumaravelu S., Susheela Kumaravelu, <i>Astronomy</i> . Sivakasi: A.Bhaskara Selvan, Revised and Enlarged Edition 2005, Reprint 2009.	Quiz
Jun 27 – July 4, 2024 (Day Order 1 - 6) 2 hours	Unit 1: Celestial Sphere and Diurnal Motion 1.5 Cardinal Points - Different Hemispheres 1.6 Visible and Invisible Hemispheres 1.7 Declination Circles, Verticals	Demonstration using models	Kumaravelu S., Susheela Kumaravelu, <i>Astronomy</i> . Sivakasi: A.Bhaskara Selvan, Revised and Enlarged Edition 2005, Reprint 2009.	Quiz
July 5 – 12, 2024 (Day Order 1 - 6) 2 hours	Unit 1: Celestial Sphere and Diurnal Motion 1.8 Rising and Setting 1.9 Transit or Culmination	Demonstration using models	Kumaravelu S., Susheela Kumaravelu, <i>Astronomy</i> . Sivakasi: A.Bhaskara Selvan, Revised and Enlarged Edition 2005, Reprint 2009.	Slip test
July 15 – 23, 2024 (Day Order 1 - 6) 2 hours	Unit 1: Celestial Sphere and Diurnal Motion 1.10 Annual Motion of the Sun – First point of Aries, First point of Libra, Equinoxes and solstices	Demonstration using models	Bhatia, V.B, <i>Text Book of Astronomy and Astrophysics with elements of Cosmology</i> . New Delhi: Narosa, 2001.	Questioning
July 24 – 31, 2024 (Day Order 1 - 6) 2 hours	Unit 1: Celestial Sphere and Diurnal Motion 1.11 Circumpolar Stars Unit 2: Planetary Phenomena 2.4 Direct Motion and Retrograde Motion 2.5 Stationary Points	Demonstration using models, Lecture & Presentation	Kumaravelu S., Susheela Kumaravelu, <i>Astronomy</i> . Sivakasi: A.Bhaskara Selvan, Revised and Enlarged Edition 2005, Reprint 2009.	CA Test I (Unit 1, 25 marks)

Aug 1 – 5, 2024 (Day Order 1 - 3) 1 hour	Unit 2: Planetary Phenomena 2.5 Stationary Points	Lecture & Presentation	Kumaravelu S., Susheela Kumaravelu, <i>Astronomy</i> . Sivakasi: A.Bhaskara Selvan, Revised and Enlarged Edition 2005, Reprint 2009.	Explaining with model
Aug 6 – 10, 2024	C.A. Test – I			
Aug 12 – 14, 2024 (Day Order 4-6) 1 hour	Unit 2: The Stellar Universe 2.1 The Milky Way Galaxy 2.2 Zodiacal Constellations	Lecture & Presentation	Kumaravelu S., Susheela Kumaravelu, <i>Astronomy</i> . Sivakasi: A.Bhaskara Selvan, Revised and Enlarged Edition 2005, Reprint 2009.	Quiz
Aug 16 – 23, 2024 (Day Order 1-6) 2 hours	Unit 2: The Stellar Universe 2.3 Stars – Double Stars, Multiple Stars and Variable Stars	Lecture & Presentation	Bhatia, V.B, <i>Text Book of Astronomy and Astrophysics with elements of Cosmology</i> . New Delhi: Narosa, 2001.	Component I: Individual Presentation (10 marks)
Aug 27 – Sep 3, 2024 (Day Order 1-6) 2 hours	Unit 3: Moon and Eclipses 3.1 Elongation - Conjunction, Opposition, Quadratures. 3.2 Daily Motion of the Moon - Age of Moon	Lecture & Presentation	Kumaravelu S., Susheela Kumaravelu, <i>Astronomy</i> . Sivakasi: A.Bhaskara Selvan, Revised and Enlarged Edition 2005, Reprint 2009.	Slip test
Sep 4 – 11, 2024 (Day Order 1-6) 2 hours	Unit 3: Moon and Eclipses 3.3 Phase of Moon (definition only) - Successive Phases of Moon 3.4 Moon Exhibits the Same Side to the Earth	Lecture & Presentation	Kumaravelu S., Susheela Kumaravelu, <i>Astronomy</i> . Sivakasi: A.Bhaskara Selvan, Revised and Enlarged Edition 2005, Reprint 2009.	Questioning

Sep 12 - 20, 2024 (Day Order 1- 6) 2 hours	Unit 3: Moon and Eclipses 3.5 Surface Structure of Moon 3.6 The Tides - Tsunami. 3.7 Types of Eclipses – Lunar and Solar Eclipse (no derivations), Duration of a Solar Eclipse	Lecture & Presentation	Kumaravelu S., Susheela Kumaravelu, <i>Astronomy</i> . Sivakasi: A.Bhaskara Selvan, Revised and Enlarged Edition 2005, Reprint 2009.	CA Test II (Unit 2: 2.1 – 2.5, Unit 3: 3.1 – 3.4, 25 marks)
Sep 23 - 26, 2024 (Day Order 1-4) 1 hour	Unit 3: Moon and Eclipses 3.8 Importance of Total Solar Eclipses 3.9 Comparison of Solar and Lunar Eclipses	Lecture & Presentation	Kumaravelu S., Susheela Kumaravelu, <i>Astronomy</i> . Sivakasi: A.Bhaskara Selvan, Revised and Enlarged Edition 2005, Reprint 2009.	Slip test
Sep 27 – Oct 3, 2024	C.A. Test – II			
Oct 4 – 5, 2024 (Day 5 & 6) 1 hour	Unit 2: The Solar System 2.6 Sun, Planets, Comets, Meteors and Meteoroids	Lecture & Presentation	Kumaravelu S., Susheela Kumaravelu, <i>Astronomy</i> . Sivakasi: A.Bhaskara Selvan, Revised and Enlarged Edition 2005, Reprint 2009.	Component II: Assignment submission (15 marks)
Oct 7 - 15, 2024 (Day Order 1 to 6) 2 hours	Unit 2: The Solar System 2.7 Astronomical Seasons on Earth	Lecture & Presentation	Kumaravelu S., Susheela Kumaravelu, <i>Astronomy</i> . Sivakasi: A.Bhaskara Selvan, Revised and Enlarged Edition 2005, Reprint 2009.	Slip test

<p>Oct 16 - 22, 2024 (Day Order 1 to 6) 2 hours</p>	<p>Unit 2: The Solar System 2.8 Celestial Calendar 2.9 Space Probes</p>	<p>Lecture & Presentation</p>	<p>Kumaravelu S., Susheela Kumaravelu, <i>Astronomy</i>. Sivakasi: A.Bhaskara Selvan, Revised and Enlarged Edition 2005, Reprint 2009.</p>	<p>Slip test</p>
<p>Oct 23 - 24, 2024 (Day Order 1 to 2)</p>	<p>REVISION</p>			