

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI**COURSE PLAN (June - November 2026)**

Department : PHYSICS
Name/s of the Faculty : Dr. ANNIE VINOSHA. P and Ms. PANIMAYA PESHUJA. A
Course Title : PHYSICS FOR CHEMISTRY I PRACTICALS
Course Code : 25PH/ME/P131
Shift : I

COURSE OUTCOMES (COs)

COs	Description						CL
CO1	recall and relate the theoretical concepts of the experiments.						K1
CO2	explain the experimental procedure.						K2
CO3	apply the theoretical knowledge of physics experiments to obtain the necessary data.						K3
CO4	analyse and interpret the quantitative results utilizing mathematical and graphical verification.						K4
CO5	develop analytic ability from the technical knowledge gained through hands-on training.						K5
Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods

Jun 15 – 22, 2026 (Day Order 1- 6)	1 – 8 Each group will do one experiment per week as per the given order.	1. Determination of 'g'-Compound Pendulum. 2. Young's Modulus 'E' by Non-Uniform Bending- Pin and Microscope 3. Young's Modulus 'E' by Uniform Bending-Scale and Telescope 4. Rigidity Modulus 'G' by Torsional pendulum (Moment Of Inertia to be assumed) 5. Surface Tension and Interfacial Surface Tension – Drop Weight Method. 6. Determination of the Refractive Index of the material of a prism - Spectrometer. 7. Verification of Series and Parallel connections of resistance and Determination of Specific Resistance - Post Office Box 8. Verification of Law - Newton's Law of Cooling using two liquids.	1-5	2	1-5	Hands-on teaching	Accuracy of the result
Jun 23 – July 1, 2026 (Day Order 1- 6)	1 – 8 Each group will	1. Determination of 'g'-Compound Pendulum. 2. Young's Modulus 'E'	1-5	2	1-5	Hands-on teaching	Accuracy of the result

	do one experiment per week as per the given order.	by Non-Uniform Bending- Pin and Microscope 3. Young's Modulus 'E' by Uniform Bending-Scale and Telescope 4. Rigidity Modulus 'G' by Torsional pendulum (Moment Of Inertia to be assumed) 5. Surface Tension and Interfacial Surface Tension – Drop Weight Method. 6. Determination of the Refractive Index of the material of a prism - Spectrometer. 7. Verification of Series and Parallel connections of resistance and Determination of Specific Resistance - Post Office Box 8. Verification of Law - Newton's Law of Cooling using two liquids.					
July 2 – July 8, 2026 (Day Order 1- 6)	1 – 8 Each group will do one	1. Determination of 'g'- Compound Pendulum. 2. Young's Modulus 'E' by Non-Uniform Bending- Pin and	1-5	2	1-5	Hands-on teaching	Accuracy of the result

	experiment per week as per the given order.	Microscope 3. Young's Modulus 'E' by Uniform Bending-Scale and Telescope 4. Rigidity Modulus 'G' by Torsional pendulum (Moment Of Inertia to be assumed) 5. Surface Tension and Interfacial Surface Tension – Drop Weight Method. 6. Determination of the Refractive Index of the material of a prism - Spectrometer. 7. Verification of Series and Parallel connections of resistance and Determination of Specific Resistance - Post Office Box 8. Verification of Law - Newton's Law of Cooling using two liquids.					
July 9 – 16, 2026 (Day Order 1- 6)	1 – 8 Each group will do one experiment per week	1. Determination of 'g'- Compound Pendulum. 2. Young's Modulus 'E' by Non-Uniform Bending- Pin and Microscope 3. Young's Modulus 'E'	1-5	2	1-5	Hands-on teaching	Accuracy of the result

	as per the given order.	by Uniform Bending-Scale and Telescope 4. Rigidity Modulus 'G' by Torsional pendulum (Moment Of Inertia to be assumed) 5. Surface Tension and Interfacial Surface Tension – Drop Weight Method. 6. Determination of the Refractive Index of the material of a prism - Spectrometer. 7. Verification of Series and Parallel connections of resistance and Determination of Specific Resistance - Post Office Box 8. Verification of Law - Newton's Law of Cooling using two liquids.					
July 17 – 24, 2026 (Day Order 1- 6)	1 – 8 Each group will do one experiment per week as per the given	1. Determination of 'g'-Compound Pendulum. 2. Young's Modulus 'E' by Non-Uniform Bending- Pin and Microscope 3. Young's Modulus 'E' by Uniform Bending-Scale and Telescope	1-5	2	1-5	Hands-on teaching	Accuracy of the result

	order.	4. Rigidity Modulus 'G' by Torsional pendulum (Moment Of Inertia to be assumed) 5. Surface Tension and Interfacial Surface Tension – Drop Weight Method. 6. Determination of the Refractive Index of the material of a prism - Spectrometer. 7. Verification of Series and Parallel connections of resistance and Determination of Specific Resistance - Post Office Box 8. Verification of Law - Newton's Law of Cooling using two liquids.					
July 25 – 28, 2026 (Day Order 1- 3)	1 – 8 Each group will do one experiment per week as per the given order.	1. Determination of 'g'- Compound Pendulum. 2. Young's Modulus 'E' by Non-Uniform Bending- Pin and Microscope 3. Young's Modulus 'E' by Uniform Bending- Scale and Telescope 4. Rigidity Modulus 'G' by Torsional pendulum	1-5	2	1-5	Hands-on teaching	Accuracy of the result

		(Moment Of Inertia to be assumed) 5. Surface Tension and Interfacial Surface Tension – Drop Weight Method. 6. Determination of the Refractive Index of the material of a prism - Spectrometer. 7. Verification of Series and Parallel connections of resistance and Determination of Specific Resistance - Post Office Box 8. Verification of Law - Newton's Law of Cooling using two liquids.					
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)	1 – 8 Each group will do one experiment per week	1. Determination of 'g'- Compound Pendulum. 2. Young's Modulus 'E' by Non-Uniform Bending- Pin and Microscope 3. Young's Modulus 'E'	1-5	2	1-5	Hands-on teaching	Accuracy of the result

	as per the given order.	by Uniform Bending-Scale and Telescope 4. Rigidity Modulus 'G' by Torsional pendulum (Moment Of Inertia to be assumed) 5. Surface Tension and Interfacial Surface Tension – Drop Weight Method. 6. Determination of the Refractive Index of the material of a prism - Spectrometer. 7. Verification of Series and Parallel connections of resistance and Determination of Specific Resistance - Post Office Box 8. Verification of Law - Newton's Law of Cooling using two liquids.					
Aug 17 - 24, 2026 (Day Order 1- 6)	1 – 8 Each group will do one experiment per week as per the given	1. Determination of 'g'-Compound Pendulum. 2. Young's Modulus 'E' by Non-Uniform Bending- Pin and Microscope 3. Young's Modulus 'E' by Uniform Bending-Scale and Telescope	1-5	2	1-5	Hands-on teaching	Accuracy of the result

	order.	4. Rigidity Modulus 'G' by Torsional pendulum (Moment Of Inertia to be assumed) 5. Surface Tension and Interfacial Surface Tension – Drop Weight Method. 6. Determination of the Refractive Index of the material of a prism - Spectrometer. 7. Verification of Series and Parallel connections of resistance and Determination of Specific Resistance - Post Office Box 8. Verification of Law - Newton's Law of Cooling using two liquids.					
Aug 25 – Sep 2, 2026 (Day Order 1- 6)	1-8 Repetition and Revision	1. Determination of 'g'- Compound Pendulum. 2. Young's Modulus 'E' by Non-Uniform Bending- Pin and Microscope 3. Young's Modulus 'E' by Uniform Bending- Scale and Telescope 4. Rigidity Modulus 'G' by Torsional pendulum	1-5	2	1-5	Hands-on teaching	Accuracy of the result

		(Moment Of Inertia to be assumed) 5. Surface Tension and Interfacial Surface Tension – Drop Weight Method. 6. Determination of the Refractive Index of the material of a prism - Spectrometer. 7. Verification of Series and Parallel connections of resistance and Determination of Specific Resistance - Post Office Box 8. Verification of Law - Newton's Law of Cooling using two liquids.					
Sep 3 – 11, 2026 (Day Order 1- 6)	1 out of the 8 experiments will be given to each student for the assessment	1. Determination of 'g'- Compound Pendulum. 2. Young's Modulus 'E' by Non-Uniform Bending- Pin and Microscope 3. Young's Modulus 'E' by Uniform Bending- Scale and Telescope 4. Rigidity Modulus 'G' by Torsional pendulum (Moment Of Inertia to be assumed)	1-5	3	1-5	Model Test I – 50 marks K1 – K5 Level	Aim and Formula K1 – 10 marks; Experimental and Procedure K2 – 10 marks; Observation K3 – 10

		5. Surface Tension and Interfacial Surface Tension – Drop Weight Method. 6. Determination of the Refractive Index of the material of a prism - Spectrometer. 7. Verification of Series and Parallel connections of resistance and Determination of Specific Resistance - Post Office Box 8. Verification of Law - Newton's Law of Cooling using two liquids.					marks Calculation and Results K4 – 10 marks; Record K5 – 10 marks
Sep 15-17, 2026 (Day Order 1 - 3)	1 out of the 8 experiments will be given to each student for the assessment	1. Determination of 'g'-Compound Pendulum. 2. Young's Modulus 'E' by Non-Uniform Bending- Pin and Microscope 3. Young's Modulus 'E' by Uniform Bending-Scale and Telescope 4. Rigidity Modulus 'G' by Torsional pendulum (Moment Of Inertia to be assumed) 5. Surface Tension and Interfacial Surface	1-5	3	1-5	Model Test II – 50 marks K1 – K5 Level	Aim and Formula K1 – 10 marks; Experimental and Procedure K2 – 10 marks; Observation K3 – 10 marks Calculation

		Tension – Drop Weight Method. 6. Determination of the Refractive Index of the material of a prism - Spectrometer. 7. Verification of Series and Parallel connections of resistance and Determination of Specific Resistance - Post Office Box 8. Verification of Law - Newton's Law of Cooling using two liquids.					and Results K4 – 10 marks; Record K5 – 10 marks
Sep 18 –23, 2026	C.A. Test - II						
Sep 24 - 28, 2026 (Day 4 – 6)							
Sep 29 – Oct 7, 2026 (Day Order 1 - 6)	1-8 Repetition and Revision	1. Determination of 'g'- Compound Pendulum. 2. Young's Modulus 'E' by Non-Uniform Bending- Pin and Microscope 3. Young's Modulus 'E' by Uniform Bending- Scale and Telescope 4. Rigidity Modulus 'G' by Torsional pendulum	1-5	2	1-5	Hands-on teaching	Accuracy of the result

		(Moment Of Inertia to be assumed) 5. Surface Tension and Interfacial Surface Tension – Drop Weight Method. 6. Determination of the Refractive Index of the material of a prism - Spectrometer. 7. Verification of Series and Parallel connections of resistance and Determination of Specific Resistance - Post Office Box 8. Verification of Law - Newton's Law of Cooling using two liquids.					
Oct 8 - 14, 2026 (Day Order 1 - 6)	1-8 Repetition and Revision	1. Determination of 'g'- Compound Pendulum. 2. Young's Modulus 'E' by Non-Uniform Bending- Pin and Microscope 3. Young's Modulus 'E' by Uniform Bending- Scale and Telescope 4. Rigidity Modulus 'G' by Torsional pendulum (Moment Of Inertia to be assumed)	1-5	2	1-5	Hands-on teaching	Accuracy of the result

	5. Surface Tension and Interfacial Surface Tension – Drop Weight Method. 6. Determination of the Refractive Index of the material of a prism - Spectrometer. 7. Verification of Series and Parallel connections of resistance and Determination of Specific Resistance - Post Office Box 8. Verification of Law - Newton's Law of Cooling using two liquids.					
Oct 15 - 21, 2026 (Day Order 1- 4)	REVISION					