



TAMRALIPTA MAHAVIDYALAYA

তাম্রলিপ্ত মহাবিদ্যালয়

Affiliated to Vidyasagar University

NAAC Re-accredited 'A' Grade College

Abasbari :: Tamluk :: Purba Medinipur :: 721636 :: WB

DEPT. OF PHYSICS

Programme: B.Sc. with Physics

Programme Specific Outcomes (PSOs) for B.Sc. Physics Hons. or Hons with Research (CCFUP)

Sr.No.	On completing B.Sc. Physics (Hons or Honours with Research),the student will be able to:
PSO1	Be acquainted with physics principles and their applications in the problems of professional life as well as in everyday life.
PSO2	Develop industry-specific skills for the existing industrial jobs, and for developing new technologies as well in Research section.
PSO3	Understand the advanced methods of scientific inquiry and develop skills for extensive research.
PSO4	Know mathematical methods and computer programming so as to model the advanced theories and provide deductions.
PSO5	Develop skills for understanding scientific literature and creating scientific communication in the written, audio and video forms.
PSO6	Correlate a fragmented problem into a complete one and create alternate solutions in diverse fields of physical, biological and social sciences.
PSO7	Expertise themselves in discipline specific areas of their interest like Instrumentation Techniques, Nano-materials with their applications, etc.
PSO8	Gain knowledge in Renewable and non-conventional energy sources to meet the demand of green energy and sustainable development with a Research Experience



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DEPT.OFPHYSICS

Course Outcomes (COs): 4 Yrs B.Sc. Physics (Hons or Honours with Research)
(CCFUP)

SEMESTER-I

Course Title: MJ-1: Foundation of Physics -1 :: Credit- 06

Course Code: PSHH –MJ-1

Sr. No.	On completing the course, the student will be able to:
CO 1	Apply Mathematical tools to any physical situation, and deduce its kinematical behavior.
CO 2	Understand the concepts of Calculus, Vectors, Matrices, Different Computation methods.
CO 3	Understand and apply the concepts of Orthogonal Curvilinear Coordinates.
CO 4	Understand and apply the concept of Line, surface and volume integrals of Vector fields.
CO 5	Have knowledge of Maxwell's relations and applications as Joule-Thompson Effect and events related to Clausius- Clapeyron Equation
CO 6	Have knowledge about Kinetic Theory of Gases and related practical aspects.
CO7	Gain idea of different statistical distribution and their applicability.
CO8	Explain Blackbody radiation nature with the help of associated laws.



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SEMESTER-II

Course Title: MJ-2: Foundation of Physics -2 :: Credit- 06

Course Code: PSH –MJ-2

Sr. No.	On completing the course, the student will be able to:
CO 1	Apply Newton's laws to any physical situation, and deduce its kinematical behaviour..
CO 2	Acquire the knowledge of matter, energy, and the interactions between them.
CO 3	Acquire knowledge about Fundamental of Dynamics, Gravitation and rotational Dynamics. Elasticity, Fluid Motion and Involvement of Coriolis forces in nature, etc from this course.
CO 4	Understand and apply the concepts of momentum and its conservation to evaluate performance of machines.
CO 5	Acquire knowledge about Electric Field and Electric Potential and Electrostatic energy& Capacitor
CO 6	Acquire knowledge about Method of Images and Dielectric Properties of Matter.
CO7	Understand and apply Lorentz force and Magnetic field
CO8	Get accustomed with the Magnetic Properties of Matter



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DEPT.OFPHYSICS

BACHELOR OF SCIENCE WITH PHYSICS

(MULTIDISCIPLINARY STUDIES)

SEMESTER-I

Course Title: GE -1: MJ A1/B1: Mathematical Methods and Mechanics (including STR)

Course Code: MJ A1/B1 Credit: 04

Sr.No.	On completing the course, the student will be able to:
CO 1	Apply Mathematical tools to any physical situation, and deduce its kinematical behavior.
CO 2	Understand the concepts of Calculus, Vectors, Matrices, Different Computation methods.
CO 3	Understand and apply the concepts of Orthogonal Curvilinear Coordinates.
CO 4	Understand and apply the concept of Line, surface and volume integrals of Vector fields.
CO 5	Acquire knowledge about Fundamental of Dynamics, Gravitation and rotational Dynamics. Elasticity, Fluid Motion and Involvement of Coriolis forces in nature, etc from this course..
CO 6	Understand and apply the concept of Elasticity, Fluid Motion and Involvement of Coriolis forces in nature..
CO7	Understand the concept of gravitation and analyse its many consequences in the universe.
CO8	Understand basic essence of Special theory of Relativity