

SIDDHINATH MAHAVIDYALAYA

TEACHING PLAN

DEPARTMENT OF PHYSICS

Teaching Plan of Semester III (2019)				
Discipline Specific Course (DSC-1C)				
Syllabus DSC1CT: Thermal Physics and Statistical Mechanics		TEACHER	Allotted Time	Class per week
Unit-I	Laws of Thermodynamics	Pabitra Adhikary	February To June	4
Unit-II	Thermodynamic Potentials			3
Unit-III	Kinetic Theory of Gases			2
Unit-IV	Theory of Radiation			2
Unit-V	Statistical Mechanics			3
Syllabus DSC1CP: Thermal Physics and Statistical Mechanics (Lab)				
Unit-I	Measurement of Planck's Constant using Black Body Radiation	Pabitra Adhikary	February To June	2
Unit-II	To Determine the Coefficient of Thermal Conductivity of a Bad Conductor by Lee and Charlton's disc Method			2

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Teaching Plan of Semester IV (2019-20)				
Discipline Specific Course (DSC-1D)				
Syllabus DSC1DT: Waves and Optics		TEACHER	Allotted Time	Class per week
Unit-I	Superposition of Two Collinear Harmonic Oscillations	Pabitra Adhikary	July To November	3
	Superposition of Two Perpendicular Harmonic Oscillations			
Unit-II	Waves Motion- General			5
	Fluids			
Unit-III	Sound			3
Unit-IV	Wave Optics			1
Unit-V	Interference			3
	Michelson's Interferometer			
Unit-VI	Diffraction	2		
Unit-VII	Polarization	1		
Syllabus DSC1DP: Waves and Optics (Lab)				
Unit-I	To Determine the Coefficient of Viscosity of Water by Capillary Flow Method (Poiseuille's Method)	Pabitra Adhikary	July To November	2
Unit-II	To Determine the Wavelength of Laser Light Using Diffraction of Single Slit			2

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Teaching Plan of Semester V (2019-20)				
Discipline Specific Elective (DSE)				
Syllabus DSE1T: ELEMENTS OF MODERN PHYSICS		TEACHER	Allotted Time	Class per week
Unit-I	Planck's Quantum	Pabitra Adhikary	December To May	4
	Problems with Rutherford Model			
Unit-II	Position Measurement			2
Unit-III	Two Slit Interference Experiment			3
Unit-IV	One Dimensional Infinitely Rigid Box			3
Unit-V	Size and Structure of Atomic Nucleus and Its Relation with Atomic Weight			3
Unit-VI	Radioactivity			4
	Fission and Fusion			
Syllabus DSE1P: ELEMENTS OF MODERN PHYSICS (Lab)				
Unit-I	To Determine Value of Boltzmann Constant Using V-I Characteristic of PN Diode.	Pabitra Adhikary	December To May	2
Unit-II	To Determine Value of Planck's Constant Using LEDs of atleast 4 Different Colours.			2