

# SIDDHINATH MAHAVIDYALAYA

## TEACHING PLAN

### DEPARTMENT OF PHYSICS

<b>Teaching Plan of Semester I (2021-22)</b>				
Discipline Specific Course (DSC-1A)				
<b>Syllabus DSC1AT: Mechanics</b>		<b>TEACHER</b>	<b>Allotted Time</b>	<b>Class per week</b>
<b>Unit-I</b>	Vectors	Pabitra Adhikary	October To March	3
	Ordinary Differential Equations			
<b>Unit-II</b>	Laws of Motion			4
	Momentum and Energy			
	Rotational Motion			
<b>Unit-III</b>	Gravitation			2
<b>Unit-IV</b>	Oscillations			2
<b>Unit-V</b>	Elasticity			3
<b>Unit-VI</b>	Special Theory of Relativity	2		
<b>Syllabus DSC1AP: Mechanics (Lab)</b>				
<b>Unit-I</b>	Measurement of Length (or Diameter) Using Vernier Caliper, Screw Gauge and Travelling Microscope	Pabitra Adhikary	October To March	2

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### DEPARTMENT OF PHYSICS

<b>Teaching Plan of Semester II (2021-22)</b>				
Discipline Specific Course (DSC-1B)				
<b>Syllabus DSC1BT: Electricity and Magnetism</b>		<b>TEACHER</b>	<b>Allotted Time</b>	<b>Class per week</b>
<b>Unit-I</b>	Vector Analysis	Pabitra Adhikary	April To August	2
<b>Unit-II</b>	Electrostatics			3
<b>Unit-III</b>	Magnetism			3
<b>Unit-IV</b>	Electromagnetic Induction			2
<b>Unit-V</b>	Maxwell's Equation and Electromagnetic Wave Propagation			3
<b>Syllabus DSC1BP: Electricity and Magnetism (Lab)</b>				
<b>Unit-I</b>	To Study a Parallel LCR Circuit and Determine Its (a) Anti-Resonant Frequency and (b) Quality Factor Q	Pabitra Adhikary	April To August	2

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### DEPARTMENT OF PHYSICS

<b>Teaching Plan of Semester III (2021-22)</b>				
Discipline Specific Course (DSC-1C)				
<b>Syllabus DSC1CT: Thermal Physics and Statistical Mechanics</b>		<b>TEACHER</b>	<b>Allotted Time</b>	<b>Class per week</b>
<b>Unit-I</b>	Laws of Thermodynamics	Pabitra Adhikary	October To March	4
<b>Unit-II</b>	Thermodynamic Potentials			3
<b>Unit-III</b>	Kinetic Theory of Gases			2
<b>Unit-IV</b>	Theory of Radiation			2
<b>Unit-V</b>	Statistical Mechanics			3
<b>Syllabus DSC1CP: Thermal Physics and Statistical Mechanics (Lab)</b>				
<b>Unit-I</b>	Measurement of Planck's Constant using Black Body Radiation	Pabitra Adhikary	October To March	2
<b>Unit-II</b>	To Determine the Coefficient of Thermal Conductivity of a Bad Conductor by Lee and Charlton's disc Method			2

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### DEPARTMENT OF PHYSICS

<b>Teaching Plan of Semester IV (2021)</b>				
Generic Elective (GE) [Interdisciplinary for Other Department]				
<b>Syllabus GE4T: Digital, Analog Circuits and Instrumentation</b>		<b>TEACHER</b>	<b>Allotted Time</b>	<b>Class per week</b>
<b>Unit-I</b>	Digital Circuits	Pabitra Adhikary	April To August	4
<b>Unit-II</b>	Semiconductor Devices and Amplifiers			4
<b>Unit-III</b>	Operational Amplifiers (Black Box approach)			3
<b>Unit-IV</b>	Instrumentation			3
<b>Syllabus GE4P: Digital, Analog Circuits and Instrumentation (Lab)</b>				
<b>Unit-I</b>	To Study IV characteristics of PN diode, Zener and Light Emitting Diode	Pabitra Adhikary	April To August	2