

**LORETO COLLEGE**  
**Department of Mathematics**

**TIME PLAN 2022-2023**

**Name of the teacher : Dr Satyabrota Kundu**

**Initials : SK**

**Teaching Objectives :**

- To impart comprehensive knowledge in theoretical and empirical perspectives on the core mathematical issues.
- To indoctrinate the fundamental mathematical tools required for empirical appraisal of various mathematical problems.
- To give exposure to analytical and logical matters subsumed in mathematical theories.

**4<sup>th</sup> Semester Topic-wise Time Plan**

<i>Topics</i>	<i>Hours allotted</i>	<i>Topics (as per curriculum)</i>	<i>Teaching method</i>	<i>Learning outcome (output)</i>	<i>Assessment</i>
Algebra II	<b>10</b>	<ol style="list-style-type: none"> <li>1. Group Theory.</li> <li>2. Rings, Fields.</li> <li>3. Rank of a matrix.</li> <li>4. Vector Space over field F.</li> <li>5. Real Quadratic Form.</li> <li>6. Characteristic Equation of a matrix.</li> </ol>	Class lecture and problem solving sessions. Revisions and doubt clearing slots.	Achieve a fervent understanding of advanced algebra.	Class test and home assignments.
Computer Science & Programming	<b>25</b>	<ol style="list-style-type: none"> <li>1. Computer Science and Programming.</li> <li>2. Positional Number System.</li> <li>3. Programming Language.</li> <li>4. Algorithms and Flow Charts.</li> </ol>	Class lecture and problem solving sessions. Revisions and doubt clearing slots.	Gather theoretical insights of the fundamental calculus.	Class test and home assignments.

Probability & Statistics	<b>25</b>	<ol style="list-style-type: none"> <li><b>1.</b> Elements of Probability Theory.</li> <li><b>2.</b> Theoretical Probability Distribution Discrete and Continuous (p.m.f., p.d.f.).</li> <li><b>3.</b> Elements of Statistical Methods, Sampling Theory, Bivariate Frequency Distribution.</li> </ol>	Class lecture and problem solving sessions. Revisions and doubt clearing slots.	Getting skilled in problem solving techniques.	Class test and home assignments.
--------------------------	-----------	--	---	--	----------------------------------