

Lecture Plan

Name of the College: Government College of Arts, Science and Commerce, Sanquelim-Goa

Name of Faculty: Minoshka D'Souza

Subject: Mathematics

Paper code: MAT-241

Program: BSc

Division: -

Academic year: 2026-27

Semester:

Total Lectures: 60

Course Objectives: To make students competent in using LaTeX for typesetting any technical document and making impressive presentations.

Expected Course Outcome:

Student Learning Outcome: At the end of the course the student will be able to

1. Recall and explain the basic concepts, commands and features of the LaTeX document preparation system.
2. Apply appropriate LaTeX tools and techniques to prepare well-structured technical and mathematical documents.
3. Analyse and organize document content using suitable formatting, referencing and document management features.
4. Create professional-quality technical documents and presentations using LaTeX.

Month	Lecture From	Lecture To	No. of lectures allotted	Topic, Subtopic to be covered	Exercise/ Assignment	ICT Tools	Reference books
June	22/06/2026	27/06/2026	5	Typing a basic document in LaTeX – trying out the effect of spaces, line breaks, empty lines, writing special characters in text, adjusting fonts, shapes and styles, adding watermark, sectioning and paragraphs.	Exercises on topics covered	LaTeX, Smart Board	L. Lamport : A Documentation Preparation System LATEX User's Guide and Reference Manual
June/July	29/06/2026	04/07/2026	5	Exploring simple documents – customizing margins, page numbers, quotations, horizontal lines, using vspace and hspace and flushleft/flushright commands, enumeration and itemize environments.	Exercises on topics covered	LaTeX, Smart Board	L. Lamport : A Documentation Preparation System LATEX User's Guide and Reference Manual
July	06/07/2026	11/07/2026	5	Typesetting accents and Greek symbols, Basic mathematical typesetting. Working with Subscript/Superscript, Fractions, Roots, Ellipsis, Mathematical operators, Special characters, Arrays, Delimiters.	Exercises on topics covered	LaTeX, Smart Board	L. Lamport : A Documentation Preparation System LATEX User's Guide and Reference Manual

July	13/07/2026	18/07/2026	5	Using equation environment, breaking/appropriately writing long equations, typing equations with cases, spaces in math mode, text in math mode.	Exercises on topics covered	LaTeX, Smart Board	L. Lamport : A Documentation Preparation System LATEX User's Guide and Reference Manual
July	20/07/2026	25/07/2026	5	Typing of matrices, infinite series, continued fractions, and boxed equations, and the like.	Exercises on topics covered	LaTeX, Smart Board	L. Lamport : A Documentation Preparation System LATEX User's Guide and Reference Manual
July/August	27/07/2026	01/08/2026	5	Using the theorem environment to typeset definitions, remarks, lemmas, theorems, corollaries, etc.	Exercises on topics covered	LaTeX, Smart Board	L. Lamport : A Documentation Preparation System LATEX User's Guide and Reference Manual
August	03/08/2026	08/08/2026	5	Cross referencing – using tag commands, hyperref environment, adding hyperlinks to text.	Exercises on topics covered	LaTeX, Smart Board	L. Lamport : A Documentation Preparation System LATEX User's Guide and Reference Manual
August	10/08/2026	15/08/2026	5	Customizing tables, minipage environment.	Exercises on topics covered	LaTeX, Smart Board	L. Lamport : A Documentation Preparation System LATEX User's Guide and Reference Manual

August	17/08/2026	22/08/2026	5	Graphics in LaTeX(Inserting images) using additional apps like geogebra, latexdraw etc	Exercises on topics covered	LaTeX, Smart Board	L. Lamport : A Documentation Preparation System LATEX User's Guide and Reference Manual
August	24/08/2026	29/08/2026	5	Creating bibliographic database and exploring various bibliographic environments to create bibliography. Generating the Table of Contents.	Exercises on topics covered	LaTeX, Smart Board	L. Lamport : A Documentation Preparation System LATEX User's Guide and Reference Manual
August/ September	31/08/2026	05/09/2026	5	Drawing simple pictures using PSTricks.	Exercises on topics covered	LaTeX, Smart Board	L. Lamport : A Documentation Preparation System LATEX User's Guide and Reference Manual
September	07/09/2026	12/09/2026	5	Making presentations using Beamer in LaTeX.	Exercises on topics covered	LaTeX, Smart Board	L. Lamport : A Documentation Preparation System LATEX User's Guide and Reference Manual
September	14/09/2026	19/09/2026	0	Ganesh Chaturti Break			
September	21/09/2026	26/09/2026	5	Understanding the various document classes such as article/report/thesis/book and experimenting with each class to understand the output	Exercises on topics covered	LaTeX, Smart Board	L. Lamport : A Documentation Preparation System LATEX User's Guide and Reference Manual

September/ October	28/09/2026	03/10/2026	1	Understanding the various document classes such as article/report/thesis/book and experimenting with each class to understand the output	Exercises on topics covered	LaTeX, Smart Board	L. Lamport : A Documentation Preparation System LATEX User's Guide and Reference Manual
October	05/10/2026	10/10/2026	5	Making use of the exam class to prepare question papers in LaTeX.	Exercises on topics covered	LaTeX, Smart Board	L. Lamport : A Documentation Preparation System LATEX User's Guide and Reference Manual
October	12/10/2026	14/10/2026	1	Revision	Exercises on topics covered	LaTeX, Smart Board	L. Lamport : A Documentation Preparation System LATEX User's Guide and Reference Manual

*** Assessment Rubrics**

Component	Max Marks
ISA 1 (Theory)	5
ISA 2 (Theory)	5

ISA 1 (Practical)	5
ISA 2 (Practical)	5
ISA 3 (Practical)	5
Semester End (Theory)	20
Semester End (Practical)	40