

# Certificate Course on Technical Writing with Latex

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Offered by  
Department of Statistics, Vimala College (Autonomous), Thrissur

## Overview

LaTeX is a high-quality typesetting system, it includes features designed for the production of technical and scientific documentation. It is widely used for the communication and publication of scientific documents in many fields. It also has a prominent role in the preparation and publication of books and articles.

This certificate course will provide a comprehensive and exhaustive hands-on experience on LaTeX. The major topics covered are Introduction of LaTeX, Math in LaTeX, Drawing, Listing content and Referencing with LaTeX and Beamer presentation.

## Course Outcomes

On completion of this course, the students will be able to:

1. Create different types of LaTeX documents.
2. Typeset mathematical formula, tables and include graphics using LaTeX.
3. Generate references and create beamer presentations using LaTeX.

## Syllabus

### Module I

Introduction and installation of LaTeX, class and packages, Latex programming and commands, fonts, symbols, indenting, paragraphs, line spacing, word spacing, titles and subtitles, document class, page style, parts of the documents, table of contents, theorem like declarations, comments within text. (10 Hours)

## Module II

Mathematical environments, math mode, mathematical symbols, drawing matrices, tables with captions, referencing of tables and equations within the text. (8 Hours)

## Module III

Graphical environments with extended drawing packages, generating bibliography and index, beamer presentation. (12 Hours)

## Reference

1. David F. Griffiths and Desmond J. Higham (2016): Learning LATEX (second edition).
2. George Gratzner (2015): Practical LATEX, Springer.
3. L. Lamport (1994): A Document Preparation System, User's Guide and Reference Manual, Addison - Wesley, New York, second edition.
4. W. Snow (1992): TEX for the Beginner. Addison-Wesley, Reading.