DEPARTMENT OF MATHEMATICS			*Certificate Course*				
Course Type	**Course Code**	**Course Code Course Title**	**Credits**	**Total Contact Hours**	**CIA**	**Ext**	**Total**
Value Added Course		Certificate Course on LaTeX	2	30			

LEARNING OBJECTIVES:

- To enable the students to understand LaTeX -a document preparation system.
- To learn the complicated Mathematical typesetting with Latex.
- To create tables, figures, diagrams using graphical packages.
- To build bibliographic and cross reference to citations.

LEARNING OUTCOMES:

- Ability to develop the documents which include mathematical formulae, tables, figures, bibliographic and cross reference using LaTeX.
- Ability to make a presentation using beamer.

UNIT - 1:

Introduction to LaTeX – preparing an Input file – Running LaTeX – Resources.

UNIT – 2:

Sample document and Key Concepts – Type Style – Environments: Lists, Centering, Tables, Verbatim – Vertical and Horizontal spacing.

UNIT – 3:

Examples – Equation Environments – Fonts, hats and underling – Braces – Arrays and Matrices – Customized Commands – Theorem-like Environments – Math Miscellany: maths styles, bold math, symbols for number sets, binomial coefficient.

UNIT – 4:

Document Classes and Overall Structure – Titles for Documents – Sectioning Commands – Miscellaneous Extras: spacing, accented character, dashes and hyphens, quotation marks – Troubleshooting: pinpointing the error, common errors, warning messages.

UNIT – 5:

Packages – Inputting Files – Inputting Picures – Making a Bibliography – Making an Index – Making presentation using beamer - Sample Article, Report and presentation.

REFERENCE BOOKS:

Learning LaTeX by David F. Griffiths and Desmond J. Higgham, SIAM
A Document Preparation System LaTeX by Leslie Lamport, Addison-Wesley, second Edition, 2009.