Central University of Punjab, Bathinda

CENTRAL UNIVERSITY OF PUNJAB

Course Scheme & Syllabus

for

M.Sc. MATHEMATICS

Course Title: Basics of LaTeX	L	T	P	Cr	Marks
Course Code: MAT.503	0	0	2	1	25
Total Hours: 30					

Objectives

The main objective of this course is provide a basic knowledge of LaTex and its various applications in teaching and research.

Unit-I   **(8 Hours)**

Installation of the software LaTeX, Understanding LaTeX compilation and LaTeX editors, Basic syntax, Writing mathematical equations, Matrices, Tables, Inclusion of graphics into LaTeX file.

Unit-II   **(8 Hours)**

Page configurations: Title, Abstract, Keywords, Chapter, Sections and Subsections, References and their citations, Labeling of equations, Table of contents, List of figures, List of tables, Page numbering, Generating index.

Unit-III   **(6 Hours)**

Packages: amsmath, amssymb, amsthm, amsfonts, hyperrefer, graphic, color, xypic, latexsym, natbib, setspace, multicol, subcaption, url, verbatim, tikz, and geometry.
Classes: Article, Report, Book, Letter, Slides, Beamer.

Unit-IV   **(8 Hours)**

Applications to: Writing reports, books, articles/ research papers, thesis, and official letters. Making simple and modern resumes, figures, question papers, and presentations.

Recommended Books:
1. L. Lamport. LATEX: A Document Preparation System, User's Guide and Reference Manual. 2nd Edition, Addison Wesley, New York, 1994.

2. D. F. Griffiths and D. J. Higham, *Learning LaTex, 2nd Edition,* Philadelphia, Pensylvania, SIAM, 1997.

Suggested Readings:
1. M. Goossens, F. M. Michel, and S. Alexander, The LaTeX companion, 2nd Edition, Addison-Wesley, 1994.