

SYLLABUS

of the

Value-added Course

Introduction to LATEX (MATHVAC 001)

(w.e.f. 2022-2023)



Offered by:

THE DEPARTMENT OF MATHEMATICS

PanskuraBanamali College

(AUTONOMOUS)

Panskura R.S., PurbaMedinipur

West Bengal – 721152

COURSE INFORMATION IN BRIEF

Course Name: *Introduction to LATEX*

Course Contents:

- Basics of creating a document in LaTeX
- Import and layout graphics
- Manage citations and references with bibliographies and bibliography styles
- Format and number graphics, tables, and sections
- Create well formatted mathematical equations, algorithms, and proofs

Course Type: Value-added Course
(Optional, additional, and not a part of the CBCS curriculum)

Medium: English

Mode: Offline

Intake: Minimum 20; Maximum 40

Eligibility: +XII, Any interested candidate in Science

Duration: 30 hours of which Theory -10 hours and Practical – 20 hours
(to complete within a time span of 2 months)

Course Fees: Rs. 300

Coordinator: **Dr. Tuhin Kumar Kar (Associate Professor),**
Dr. Kazi Abdul Halim (Assistant Professor)

Contact: Department of Mathematics, Panskura Banamali College (Autonomous)
tuhin.pbc.math@gmail.com & halim.jumath@gmail.com
9433414572 / 9732680152 (WhatsApp only)

Structure & Contents

1. Introduction to word Processor and Type Setting Software. Introduction to MikTeX and TexStudio.
2. The structure of a Latex document, Defining class of the document through `\documentclass` and using packages through `\usepackage`, `\begin{document}` and `\end{document}`
3. Text formatting and colouring commands.
4. Introduction to Mathematics Environment, Writing Greek Symbols and some basic mathematics type structure like Fractions, Superscript, subscript, Overline, Underline etc.
5. Matrix, Determinant and Other similar structure.
6. Equations and Arrays
7. Inserting pictures and tables, Defining, redefining and using Macros
8. Special Environments Enumerates, Tabular, Cases etc.
9. Power point Presentation using Beamer
10. Advance packages

Suggested Readings

1. Math into LaTeX and Introduction to LaTeX and AMS LaTeX by George Gratzer
2. The Not So Short Introduction to LaTeX 2E by Tobias Oetiker, Hubert Partl, Irene Hyna and Elishabeth Schlegl
3. The LaTeX Companion Second Edition by Frank Mittelbach and Michel Goossens