

## OBJECTIVE:

LaTeX is widely used for scientific publications and a variety of other forms of publishing. It not only produces attractively typeset documents, but it also enables users to swiftly tackle the more technical aspects of typesetting, such as entering mathematical equations, constructing tables of contents, referencing and constructing bibliographies, and maintaining a consistent layout across all sections. The prospects with LaTeX are limitless due to the vast number of open-source packages offered.

So, our main objectives in running this course are

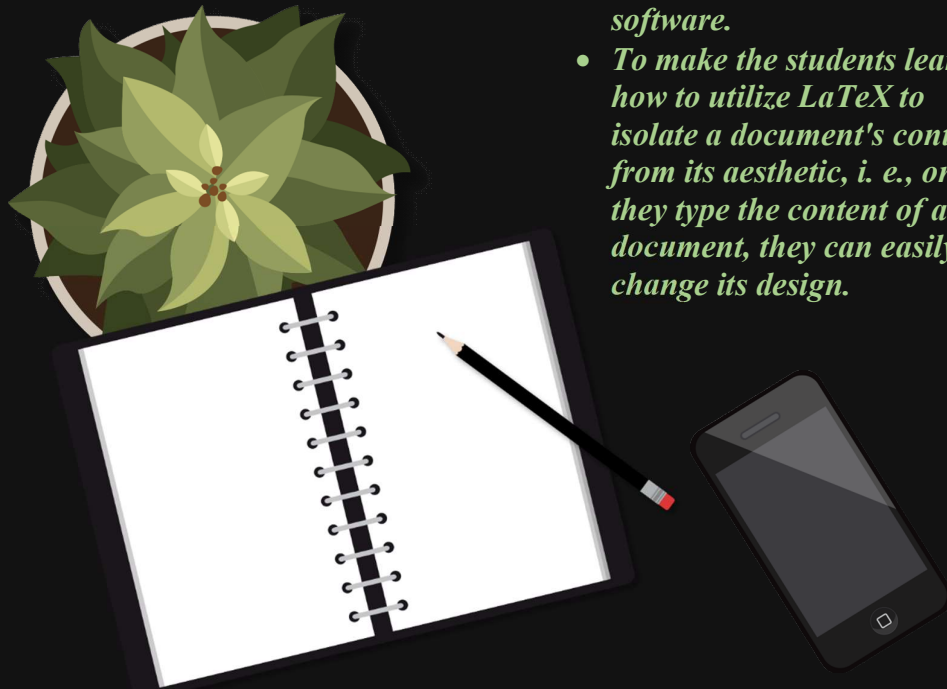
- *To introduce the students with a document preparation system that allows them to create professional-looking documents without using a word processor.*
- *To help the students to excel at typesetting equations while writing long, structured documents. It is freely accessible for most of the operating systems.*
- *To make the students know importance of this software for publishing research articles, papers, project reports and books and thereby help them to be comfortable with the software.*
- *To make the students learn how to utilize LaTeX to isolate a document's content from its aesthetic, i. e., once they type the content of a document, they can easily change its design.*



Certificate will be provided to each participant upon successful completion of the course.  
Registration fees:  
Rs. 50/- only

# **SCIENTIFIC DOCUMENT WRITING USING LATEX: A HANDS-ON TOWARDS ITS METHODOLOGIES**

An Add-on (blended mode) course offered by  
the Department of Mathematics, Garhbeta College





## COURSE DESIGN

- ❖ *Installation of the software LaTeX (1 hr.)*
- ❖ *Document class & Environments (1 hr.)*
- ❖ *Packages (1.5 hrs.)*
- ❖ *How to prepare a title page & abstract (1 hr.)*
- ❖ *Sectioning (30 minutes)*
- ❖ *Preparation of table of contents, ordinary paragraphs & bibliography (2 hrs.)*
- ❖ *Label, Cross-referencing & Hyperlink (1 hr.)*
- ❖ *First Tutorial of 1 hour*
- ❖ *Fonts & spacing (1 hr.)*
- ❖ *Coloring (30 minutes)*
- ❖ *Special characters including various & foreign letters (1 hr.)*
- ❖ *How to type various mathematical symbols (1 hr.)*
- ❖ *Preparation of tables & arrays (1.5 hrs.)*
- ❖ *How to type mathematical equations & multiline formulae (2 hrs.)*
- ❖ *Second Tutorial of 1 hour*
- ❖ *Customization of header, footer, margin & dimension of a page (1 hr.)*
- ❖ *How to create multi-column pages, footnotes & margins (1.5 hrs.)*
- ❖ *Graphics, Figures & Captions (2.5 hrs.)*
- ❖ *Third Tutorial of 1 hour*
- ❖ *Errors & Warnings (1 hr.)*
- ❖ *When, why, what & how to index: Use of MakeIndex (1 hr.)*
- ❖ *Theorem Styles & related topics (1 hr.)*
- ❖ *Introduction to beamer presentation: How to prepare title page & author information (1 hr.)*
- ❖ *Themes of beamer presentation (2 hrs.)*
- ❖ *Construction of frames of a beamer presentation (1.5 hr.)*
- ❖ *Referencing in beamer presentation (30 minutes)*
- ❖ *Final Tutorial of 1 hour*
- ❖ *Summative Assessment & Feedback*



## COURSE COORDINATORS & INTERNAL RESOURCE PERSONS

Dr. Abhijit Banerjee, Associate Professor & Dr. Rajlaxmi Mukherjee, Assistant Professor, Dept. of Mathematics, Garhbeta College

### CONTACT INFORMATION:

+918768642056

[abhijitbanerjee@garhbetacollege.ac.in](mailto:abhijitbanerjee@garhbetacollege.ac.in)



## EXTERNAL RESOURCE PERSONS

Dr. Sourav Das  
Assistant Professor, Dept. of Mathematics, National Institute of Technology Jamshedpur  
[souravdas.math@nitjsr.ac.in](mailto:souravdas.math@nitjsr.ac.in)



Dr. Pavel Pal  
Assistant Professor  
Dept. of Mathematics  
Bankura University  
[pavelpal@bankurauniv.ac.in](mailto:pavelpal@bankurauniv.ac.in)

