

# ENH1301 Application Laboratory

## LaTeX Tutorial

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### **Objective:**

Practice writing and compiling a LaTeX document using the most important features, including a cover page, table of contents, sections, mathematics, tables, figures, citations, and bibliography.

### **Page 1 – Cover Page**

- Add a title using `\title{}`
- Add your name as author using `\author{}`
- Add today's date using `\date{}` (or `\date{\today}`)
- Show the cover page using `\maketitle`

### **Page 2 – Table of Contents**

- Insert a Table of Contents using `\tableofcontents`
- Add a page break so that the next section starts on a new page.

### **Page 3 onwards – Main Content**

Now start writing the main body of the document. You must include the following:

1. Sections & Subsections
  - Add at least two sections (e.g., Introduction, Methodology).
  - Add at least one subsection under each section.
2. Lists
  - Add one bulleted list (`itemize`).
  - Add one numbered list (`enumerate`).
3. Mathematics
  - Write one inline equation (e.g.,  $E = mc^2$ ).
  - Write one displayed equation (e.g., quadratic formula).

#### 4. Table

- Create a table with at least 3 rows and 3 columns.
- Add a caption and label so that you can reference it later.

#### 5. Figure

- Insert an image (any picture you like).
- Add a caption and label.
- Refer to the figure in your text using `\ref{}`.

#### 6. Cross-Referencing

- In your text, mention “As shown in Table~\ref{tab:example} ...”
- Do the same for the figure.

#### 7. Citations & References

- Create a separate `references.bib` file with at least 2 references (e.g., a book and an article).
- Cite them in the document using `\cite{}` or `\citet{}`.
- Add a Bibliography section at the end.

Compile your LaTeX code and export it as a PDF.