Manual: Teaching Material Preparation using NotebookLM + Overleaf (LaTeX)

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Goal

Prepare clean, professional **teaching notes (PDF)** and **presentation slides (PDF)** using: **NotebookLM** (content drafting) + **Overleaf** (LaTeX typesetting and export).

A. Create Overleaf Project (Notes)

Step 1: Open Overleaf in your browser and **Log in**.

Step 2: Click **New Project** → **Blank Project**.

Step 3: Enter a project name (example: `Unit1_Notes`).

Step 4: In the editor, open `main.tex`. This is where you paste the LaTeX code.

B. Prepare Content in NotebookLM (Notes)

Step 5: Open NotebookLM and create a **New Notebook**.

Step 6: Upload your sources as **PDF** (chapter notes, textbook unit, papers, handouts).

Step 7: Use a clear prompt like the one below to generate **LaTeX notes**.

Prompt for LaTeX Notes (copy and edit):

Create LaTeX teaching notes from the uploaded PDFs. Mandatory:

- Output MUST start with \documentclass and end with \end{document}.
- Use article format (11pt, a4paper).
- Title: UNIT TITLE; Author: Prof. B. Santhi, Dean-SRC, SASTRA, shanthi@cse.sastra.edu.
- Structure with clear sections and subsections.
- For each section include: (i) short explanation, (ii) 1 example, (iii) 5 practice problems.
- Use simple language suitable for students.
- Do NOT add any line before \documentclass or after \end{document}.

Step 8: When NotebookLM outputs the LaTeX, **delete any extra lines**:

- Remove anything before `\documentclass`
- Remove anything after `\end{document}`

C. Paste into Overleaf and Download Notes PDF

Step 9: Copy the cleaned LaTeX code from NotebookLM.

Step 10: Paste it fully into Overleaf `main.tex` (replace existing content).

Step 11: Click **Recompile**.

Step 12: In the PDF preview panel, click the **Download PDF** (down-arrow) icon.

Step 13: Save the PDF to your folder.

D. Create Overleaf Project (Slides)

Step 14: In Overleaf, click **New Project** → **Blank Project**.

Step 15: Name it (example: `Unit1_Slides`).

E. Generate Beamer Slides in NotebookLM and Export PDF

Step 16: In NotebookLM, use the prompt below to generate **Beamer LaTeX code**.

Prompt for LaTeX Beamer Slides (copy and edit):

> Create LaTeX Beamer slides from the uploaded PDFs.
> Mandatory: 1) Output MUST start with \documentclass and end with \end{document}. 2) Use beamer with Madrid theme. 3) Title: ¡UNIT TITLE¿. Author: Prof. B. Santhi, Dean-SRC, SASTRA, shanthi@cse.sastra.edu. Date empty. 4) Create 12 to 18 slides: - outcomes, key concepts, diagrams/tables if needed, 2 examples, practice problems, summary. 5) Keep each slide concise (bullets, not paragraphs). 6) Do NOT add any line before \documentclass or after \end{document}.

Step 17: Clean the output: remove extra text outside LaTeX boundaries.

Step 18: Paste the Beamer code into Overleaf `main.tex`.

Step 19: Click **Recompile**.

Step 20: Download using the **down-arrow** icon (Download PDF).

Common Fixes (Fast)

- If Overleaf shows errors: check missing { } braces and ensure every `\begin` has a matching `\end`.
- If PDF is blank: confirm you pasted the full code from `\documentclass` to `\end{document}`.
- If slides are crowded: split one frame into two frames and reduce bullet points.