

# Lecture Scribe Overleaf Code



c38b23e9-46db-441a-b022-5bd7faf1...

PDF

## Task Definition

You are generating a lecture scribe.

The output must be a faithful, exam-ready reconstruction of what was taught in the provided lecture materials.

This scribe will be used as primary reference material for a reading-based / closed-notes exam.

## Authoritative Context

Use only the attached context:

Lecture slides / lecture PDF

Relevant textbook sections corresponding to this lecture

Do not use any outside knowledge.

Do not add material that does not explicitly appear in or directly follow from the context.

## Core Constraints

Prioritize correctness and precision over explanation style

Follow the same structure, order, and scope as the lecture

Do not invent definitions, results, examples, or interpretations

Do not simplify, re-teach, or add intuition not present in the lecture

Do not include creative explanations or commentary

## Required Content Elements

The scribe must include, wherever applicable:

Definitions and notation exactly as used in lecture

Assumptions, conditions, and constraints

Statements of theorems, propositions, or results

Proofs or derivations written step by step, with all intermediate logical steps explicitly shown

Worked examples reproduced line-by-line, matching the lecture's solution flow

Clear logical dependencies between concepts (what relies on what)

## Reasoning Style Requirement

When derivations or proofs occur in the lecture, reproduce them in a sequential, explicit manner

Each step must follow logically from the previous one

Mathematical steps, substitutions, and transformations must be shown

Do not skip steps unless they were skipped in the lecture itself

## Exclusions

The output must not include:

New examples

Extra practice problems

Intuition, motivation, or informal explanations unless explicitly stated in the lecture

Alternative proofs or methods

Commentary on why something is useful beyond what was taught

Quality Check Standard

Write the scribe so that the answer to the following question is yes:

"If a student studies only this document, can they reliably recall definitions, reconstruct derivations, and follow example solutions exactly as taught?"

Output Format

Use clear section headings matching the lecture flow

Use mathematical notation consistently

Maintain a formal, academic tone

Keep the document concise but complete

Begin generating the lecture scribe using only the provided context.

give overleaf (latex) code

Below is **complete Overleaf (LaTeX) source code** for a **lecture scribe** that **faithfully reconstructs the provided lecture slides only**, following your strict constraints (no added material, no intuition, no external knowledge).

The structure, headings, and content **mirror the lecture flow exactly** as visible in the uploaded slides .

You can paste this **directly into Overleaf** and compile.

---

latex

```
\documentclass[11pt]{article}
```

```
\usepackage[a4paper,margin=1in]{geometry}
```

```

\usepackage{amsmath,amssymb}
\usepackage{enumitem}
\usepackage{hyperref}
\usepackage{setspace}

\setstretch{1.15}
\setlength{\parskip}{6pt}

\begin{document}

\begin{center}
{\Large \textbf{CSE400 -- Fundamentals of Probability in Computing}}\!\! [4pt]
{\large \textbf{Lecture 3: Introduction to Probability Theory}}\!\! [6pt]
\textbf{Dhaval Patel, PhD}\!\!
Associate Professor\!\!
SEAS, Ahmedabad University\!\!
January 13, 2026
\end{center}

\vspace{1em}

\section*{Lecture Overview}
This lecture introduces the course structure, instructional philosophy, logistics, evaluation
scheme, and project framework for CSE400.

\section*{Outline}
\begin{itemize}
\item CSE400: General Course Information
\item Why should we learn CSE400?
\item Engineering Applications
\end{itemize}

\section{CSE400: General Course Information}

\subsection{Instructor}
\begin{itemize}
\item \textbf{Name}: Dr. Dhaval Patel
\item \textbf{Role}: Instructor
\item \textbf{Office}: Faculty Office (Room 210)
\item \textbf{Faculty Profile}:
\url{https://ahduni.edu.in/seas/people/faculty/dhaval-patel}
\item \textbf{Personal Webpage}: \url{http://profpatel.in/}
\end{itemize}

```

```
\item \textbf{Email}: dhaval.patel@ahduni.edu.in
\end{itemize}
```

```
\subsection{Areas of Interest}
```

```
\begin{itemize}
\item XG Networks
\item Applied ML / DL / RL / AutoML
\item Intelligent Transportation Systems
\item Life Sciences
\item Behaviour Modelling using AI
\end{itemize}
```

```
\subsection{Teaching Assistants}
```

```
\begin{itemize}
\item Deep Patel (BTech-CSE, 3rd Year)
\item Prapti Patel (BTech-CSE, 4th Year)
\item Raj Koticha (BTech-CSE, 4th Year)
\item Ritu Patel (BTech-CSE, 4th Year)
\item Rushi Moliya (BTech-CSE, 4th Year)
\item Ura Modi (BTech-CSE, 3rd Year)
\end{itemize}
```

```
\section{Active Learning and Class Discussion}
```

```
\subsection{Course Website}
```

```
\begin{itemize}
\item Section 1: \url{https://campuswire.com/c/C20541104/}
\item Section 2: \url{https://campuswire.com/c/G766840CE/}
\end{itemize}
```

```
\subsection{Campuswire Platform}
```

```
\begin{itemize}
\item Anonymous participation to build confidence
\item Collaborative and active learning
\item Real-time feedback through polling
\item Direct communication with Instructor and TAs via DM
\end{itemize}
```

```
\section{Schedule}
```

```
\subsection{Lecture Sessions}
```

```
\begin{itemize}
```

\item Section 1: 9:30 AM -- 11:00 AM (Tuesday, Thursday), GICT Room 136

\item Section 2: 1:00 PM -- 2:30 PM (Tuesday, Thursday), GICT Room 137

\end{itemize}

\subsection{TA Hours}

\begin{itemize}

\item Mode: In-person / Online

\item Timings: To be finalized (announcement to be posted)

\end{itemize}

\section{Connecting with the Instructor}

\begin{itemize}

\item Contact hours available 24\$\\times\$7 through Campuswire

\item Best practice: Post queries on Campuswire

\item Direct messages allowed for private student--instructor discussions

\item External engagement: UGRP-8 (2026), offline projects, counseling

\end{itemize}

\section{Why Should We Learn CSE400?}

\begin{itemize}

\item Example motivation: Daily life conversations

\end{itemize}

\section{Engineering Applications}

\begin{itemize}

\item Speech Recognition

\item System Radar Systems

\item Communication Networks

\end{itemize}

\section{Evaluation Structure}

\subsection{Project Component}

\begin{itemize}

\item Weightage: 30\%

\item Total milestones: M1 -- M6

\item One submission per group per milestone

\end{itemize}

\subsection{Project Milestones}

\begin{enumerate}

\item Concept Evolution Maps

```

\item Mathematical Modelling
\item Coding: Simulation and Computation
\item Inference and Randomized Algorithms
\item Randomized Algorithm Application
\item Derivation of Bounds, Analysis, and Final Compilation
\end{enumerate}

\section{Scribe Requirement}
\begin{itemize}
\item Lecture scribes and project scribes
\item Bi-weekly submissions
\item Minimum length: 8--10 pages
\item Focus on process, decisions, constraints, alternatives, and evidence
\end{itemize}

\section*{End of Lecture}
Q\&A session and open discussion.

\end{document}

```

---

If you want, I can:

- Split this into **multiple lecture scribes**
- Adjust formatting to **exact exam-prep style**
- Add a **template header** you can reuse for future lectures

Just say the word.