

Active Teaching Lab



Lab Notes

December 4th, 2024

Building your next course with AI

After some delay, you will find below the Lab Notes for our December 4th Active Teaching Lab. In our December Active Teaching Lab workshop "Building your next course with AI: A Hands-on workshop," we explored practical applications of AI tools for course development. Through collaborative discussion and hands-on experimentation, we shared experiences with various AI platforms including Claude, ChatGPT, Perplexity, Google Gemini, and Adobe Firefly. The session revealed how AI can expedite course preparation while maintaining educational quality through careful integration with instructor expertise.

[The spring 2025 schedule is available here.](#)

- An edited version of the December 4th recording, the session handout, and all other available Lab recordings, are currently available at the [Active Teaching Lab archive](#).
- [A trimmed version of the Zoom session recording along with summary, chat messages, and next steps is available from this Zoom link.](#)

Session Recap

The workshop uncovered numerous ways in which instructors at UW-Milwaukee are already using AI to help them build their courses. To learn more check out the handout and in-lab worksheet where participants shared their AI strategies. Or, review below for an outline of our discussion.

1. **Diverse AI Tools Available** - Participants shared experiences with a range of AI tools, each serving different purposes:
 - [Claude.ai](#): Excelled at handling multiple documents, creating detailed worksheets, and maintaining context in extended conversations
 - [Perplexity](#): Valued for current information with cited sources, particularly useful for creating teaching examples
 - [Adobe Firefly](#): Effective for creating custom images for slides and converting PDF documents to editable formats
 - [Google Gemini](#): Strong capabilities in image generation and research preparation
 - Specialized tools like [Liner AI](#) for academic source curation and [Curipod](#) for lesson planning
2. **Best Practices** - The session revealed important strategies for effective AI use:
 - AI is best employed as a collaborative tool to augment your work through dialogue and multiple interactions. It is prone to misunderstanding and hallucination and so not a replacement for instructor expertise.
 - Verify and refine content received from AI before using it.
 - Combine multiple AI tools to leverage their respective strengths.
 - Start with AI for basic outlines and concepts, and then use their initial draft to customize to your course needs.
3. **AI for Research** - student and personal
 - Use AI to guide students through scholarly research for course assignments. Where does AI help expand research, where does it go off the rails.
 - Upload collection of documents into AI to create briefing guides, study guides based on selected material, or even texts of conversations between two “people” that you could rework into a podcast. (notebooklm.google.com). [More information about NotebookLM here](#).
 - Use AI to summarize topics you want to investigate further
 - Use [Elicit AI](#) to create a list of academic sources you might have missed in research.
 - Utilize AI to suggest readings on specific topics you might have missed
4. **Common Applications for Course Development** - Over the course of the session we identified numerous successful uses of AI to assist you as you create course activities. AI can be used to:
 - **Create course content**

- i. Summarize course topics based only on course material (see NotebookLM above)
 - ii. Create course reading lists
 - iii. Generate course content:
 - 1. Math example problems for students to complete in class
 - 2. Customized and targeted examples for in-class discussion
 - 3. Sample data sets to use for course work.
- **Prepare for class**
 - i. Help you organize notes, and remind you if you forgot something important or new on the topic.
 - ii. Create customized images with AI for class slides and Canvas course
- **Develop, improve, and brainstorm assignments and other course activities**
 - i. Writing clearer and more concise instructions
 - ii. Revising, proofreading, or creating assignment instructions
 - iii. Building rubrics
 - iv. Creating example problems and scenarios
 - v. Ensuring assignment or module learning objectives line up with course learning objectives,
 - vi. Ensuring assignment or module learning objectives are used consistently
 - vii. Creating engaging discussion prompts
 - viii. Creating supplementary materials like study guides and activity sheets
 - ix. Use AI to create an answer to a problem and then have students critique the answer
 - x. Create lecture or discussion summaries (must first record lecture/discussion and gain student approval)
- **Improve course accessibility** by creating accessible content alternatives
- **Expand resources tied to in-class media** (such as movies): use AI to create film summaries, comprehension questions, guides, and word lists about the movie.

How AI was used in this text: AI was utilized to summarize the Zoom session transcript and highlight main themes. This summary was heavily edited and merged with my own material. The text was then edited and remixed. All responsibility for the accuracy of this summary falls on me.



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