From August 2024 - May 2025, several UMBC faculty gathered 5 times per semester for a Faculty Learning Community (FLC). The topic was: Using AI to Enhance and Expedite Teaching.

The following set of slides provide brief examples of AI-related enhancements that they have used or are using in their classes.

The UMBC faculty members participating in this FLC were: Abhijit Dutt, Carolyn Forestiere, Keyimu Kalibinuer, Lisa Dickson, Mohan Sundaram, Nandita Dasgupta, Tomoko Hoogenboom, and the group's facilitators were Neha Raikar and Diane Alonso.

Dr. Diane Alonso:

Examples:

- **PSYC 311 (SP2025)**
    - Used Latimer to create a [15-week group project](#)
    - Used Latimer and ChatGPT 4.o (free version) to create Think-Pair-Share activities (an example: [output](#), [final product](#))

- **PSYC 312 (FA2024)**
    - Used ChatGPT 4.o (free version) to create a [Group Activity](#) compare personal writing (expertise) vs. Chat GPT output
    - Used ChatGPT 4.o (free version) to create activities with datasets ([example - what we used in class](#), [original ChatGPT dialog](#))

- Requires full disclosure; may take several attempts

Dr. Neha Raikar:

- Design Process Safety Related In-class activities using AI, primarily ChatGPT or Perplexity
  - Watch a safety incident video and a related class-activity follows
- Generate small engagement polling questions
  - Can be content related or ice-breaker questions
- Generated a podcast using Notebook LM on one of the book chapters
  - Will try to create a discussion board or some interaction

Dr. Tomoko Hoogenboom:

- **JPNS 302 Advanced Japanese II**

Objective: be able to compare multiple AIs results and decide which of them to use for their papers with the reasoning.

- Social issues in Japan of their choice in Japanese (5-6 pages, typed, double spaced)
- Edit draft using AI in class
  1) Use multiple AI
  2) Think of prompts to instruct AI
  3) Look into the differences of words/sentence structures produced by multiple AI
  4) Decide what is suitable for expressing the thoughts
  5) Submit their original draft, AI produced drats, and edited draft with the reasons of the choice

Dr. Nandita Dasgupta:

Application of AI in Teaching and Learning: Dasgupta

1. Used AI in Blackboard to create multiple choice questions for quiz.
2. Used Copilot to double check my calculus-based explanations and answers to optimization problems for my lecture materials.
3. Created practice problems in Copilot and Chat GPT.
4. Experimented with Notebook LM to create a deep dive audio conversation on microeconomics concepts.
5. Used Tome to create powerpoint slides.

Dr. Mohan Sundaram:

- Used AI for Content Creation and Lesson Planning
- Help with Syllabus Design / Lecture Sequence
- Multiple Choice Questions/Quizzes/Tests
- Help with Grading
- Analyze Student engagement
- Generate ideas for Class activities
- Experimented with several tools - Otter.AI(Meeting-Note Taking), Suno.AI (Music), Notebook LM

Dr. Lisa Dickson:

1) Use napkin.ai to help with graphics for concepts in Econ 101
2) I used chatgpt to help create new multiple choice questions.
3) I also used chatgpt to help write a new assignment on how technology has affected labor market productivity.
4) In the future, I will look into using notebook LM to create audio for class material.

Dr. Keyimu Kalibinuer:

1) Used ChatGPT 4.0 (Paid version) to create powerpoint slides for ECON 102. Created group project peer reviews sample Qs.
2) Used Chat GPT 4.0 to help with Syllabus design.
3) Help with multiple Choice Qs.
4) Used Copilot to check Math equations for the group project.
5) Considering using Notebook LM to generate a Podcast.

Abhijit Dutt, PhD:

- In this area, I have two goals
    - To use AI and improve my teaching
    - Empower students and teach them how to use AI in their workplace
- I was little surprised how many students were struggling to find information and they are still not comfortable with use of LLM
- In one of my classes, I plan to discuss about prompt engineering

- Mostly I have used ChatGPT (Paid version)
- Specific use cases where I have used AI
  - Created syllabi, created and edited PPT slides
  - Created example programs in different languages
  - Showed students how to do research and find effective solution
  - Summarized research papers and created questions for class discussion
  - Created tests and answers

AI use in Study Abroad - Forestiere (Political Science)

With only two weeks in our host country (Italy), I encouraged my students to use AI (mostly ChatGPT and Claude) to begin research projects on topics related to globalization, populism, political violence, democratic backsliding, and economic inequality around the world. AI was really good in summarizing issues and providing examples, but it was imperative to double check the information because of potential hallucinations. We also spent some time talking about how to write prompts: the quality of the answer had a lot to do with the quality of the question. We did find that AI was not very good at finding research studies - in many cases, ChatGPT for example made up studies and journals!