



# Using Gen AI as a Study Tool

GenAI can be a helpful, accessible study tool, but you need to be intentional when you use it. Think about what you want to get out of using AI. Are you looking to memorize information? Unpack concepts? Organize ideas? This handout provides an overview of how you can use AI intentionally, centering your own critical thinking and agency throughout the learning process.

## Self-regulated learning is important

Self-regulated learning involves consistent effort and self-motivation to support personal development (Zimmerman, 2015). This means that you, as a learner, need to remain active throughout the process. Whether you work with instructors, peers, or digital tools, it is important to stay engaged and involved.

In other words, you should never delegate vital mental work to another person or a tool. Your engagement with peers and/or technology should extend, nuance, or challenge your own thinking.

## Before turning to AI

You should only be using AI to support the process, not generate an outcome. Your role is to produce that work yourself, but AI can help provide proper scaffolding.

**This means you should never use AI to generate a paper, a test answer, or a completed assignment.**

Here are three things you should always keep in mind when using AI as a study tool:

- Make sure your specific usage of AI is allowed
- Evaluate all AI outputs, using your own critical judgment to accept or dismiss claims
- Monitor your learning by regularly testing your knowledge without consulting AI

## Using AI as a study tool

Below, you will find a few ways you can use AI tools to support your learning while keeping your own originality, critical thinking, and effort in the centre.

### Reading a text aloud

Many students can benefit from listening and taking notes simultaneously. Those who learn better with audio may also benefit from text-to-speech software.

Many AI tools can read text out loud or generate audio overviews. You may also notice that certain websites and computer applications already offer a built-in text-to-speech. Some tools may also allow you to download these audio files to your devices to be played at any time.

## Summarizing content

AI tools can be used to summarize long documents to support your studying process. To make sure AI summaries are effective, make sure you compare the generated summaries with the insights you have gained from your own reading and notetaking. This helps you develop a deeper understanding of the material while also mitigating AI's inaccuracies.

Keep in mind that using AI to generate summaries cannot replace the benefits of summarizing content yourself. Manually summarizing content helps develop your reading comprehension (Ramirez-Avila & Barreiro, 2021), writing quality (McNamara et al, 2024), and learning (Fiorella & Mayer, 2015).

## Exploring concepts

Many AI tools can search the internet for information. When studying complex concepts, you can ask AI to consult perspectives from the web. This function can help point you to various sources.

Make sure to read the original sources that AI points you toward. This is a strategy **called lateral reading**, which can help you evaluate the accuracy and credibility of information by consulting different sources.

## Questioning and guiding

AI tools can be assigned the role of a Socratic teacher. The Socratic Method involves a teacher's use of probing questions to develop a student's critical thinking. This method can make you, the student, more active and engaged in your learning.

### Example prompt:

"Based on the attached lesson notes, act as a Socratic teacher and ask probing questions to develop my understanding. Use a mix of fact-based questions and questions that require critical thinking and analysis. If I don't know the answer, ask an alternative question to scaffold the learning process, but don't provide an answer."

**Tip:** The Socratic Method is dialogue-based, which makes students more active learners. This also means that you don't need to limit yourself to only be answering questions; feel free to ask questions, too!

## Making flashcards

Whether you are looking at your notes, a textbook, or scholarly literature, AI can help create flashcards for you. (Just be mindful, when uploading instructors intellectual property or copyrighted material, to make sure you are allowed to upload the file without infringing on instructor's expectations or copyright)

When you prompt AI, make sure you indicate what you want your flashcards to test. Specify whether you are looking for question and answer or key terms and definition. You may also want to specify whether you want to test memory recall (e.g. asking “what,” “where,” and “when”) or conceptual understanding (e.g. asking “how” and “why”)

**Example prompt to make a flashcard:**

“Create a flashcard deck with the attached lesson notes. Format the flashcards as Question & Answer.”

**Tip:** Remember that AI will always try to give you what you ask for— Even if it has to make up information to do so! For this reason, when it is appropriate to do so, it can be useful to provide the AI tool source material to draw from. And ask the tool to limit flashcards to material that is represented in the source. Also, even when you provide the AI with a source material, it is still important to verify that the flashcards are accurate so you don’t end up memorizing false or fabricated information.

**Practicing exam questions**

AI tools can also generate exam questions. These questions may look similar to the flashcards, only formatted as an exam that you can go through and answer.

You can also ask AI to provide an answer key, but it may be more efficient for you to verify the answers yourself by consulting your notes or original sources.

**Example prompt:**

“Generate a 30-item exam using the attached notes. Include a mix of multiple-choice questions and short answer questions.”

**Tip:** You can also prompt the AI to give you one question at a time, which you can answer as you receive them.

**Conclusion**

Studying too many units for too many courses can be overwhelming. Using AI to study can help manage overwhelming course load.

However, too much offloading can detract from your learning and diminish your personal development. Significant learning can only occur when you dedicate your time and effort to truly understand the material.

When using AI, focus on supplementing the learning process instead of generating answers. This can help ensure you are supporting (not replacing) your learning and developing (not delegating) skills.

Lastly, AI may be available, accessible, and convenient, but the benefits of studying with AI cannot replace the benefits of studying with other people. Whenever possible, you should engage in meaningful conversations with peers, mentors, tutors, or teachers to support your learning.

## References

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