

Using AI to Study

STUDY SMARTER BY USING AI TO IMPROVE UNDERSTANDING, PRACTICE, AND PERFORMANCE

1. Why use AI to study?

AI can be a powerful study tool when used correctly. It helps you move beyond passive studying into more personalized and efficient learning.

Key benefits:

- **Personalized learning** → AI can adapt to your level and explain concepts in different ways until you understand them.
- **Faster understanding** → You can ask questions instantly and get explanations, summaries, or examples at any time, no waiting for office hours.
- **Active learning support** → AI helps you test yourself through quizzes, flashcards, and practice questions instead of just re-reading notes.
- **Identifying weak areas** → By practicing with AI, you can quickly see what you don't understand and focus your studying there.
- **Saving time** → AI can help organize notes, simplify complex topics, and generate study materials so you can focus on learning.

⚠ Quick Tip: AI should support your learning, not replace it. Always make sure you understand the material, not just the answer.

2. How to prompt AI well

The quality of your results depends on how you ask your question. A clear and specific prompt will give you better, more useful answers.

How to write effective prompts:

- **Be specific** → Instead of “Explain this,” say exactly what you need.

“Explain opportunity cost with a simple example.”

- **Give context** → State what you're studying and why (to reduce hallucinations)

“I'm studying for a finance midterm, explain NPV step-by-step.”

- **Set clear instructions** → Ask for the format you want.

“Generate 15 flashcards on [topic]. Use a mix of conceptual, application-based, and scenario questions. Keep answers concise. I'm preparing for an exam and want to improve recall and problem-solving.”

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- **Keep it simple and direct** → Avoid long, confusing questions, as clarity leads to better results.
- **Refine your prompt** → If the answer isn't helpful, adjust and try again.

3. Making practice quizzes with AI

As a TMU student, you have free access to the education version of Google Gemini. You can log in using your TMU Google Workspace account credentials to access it. This unlocks one of the most powerful study tools: Gemini's interactive quiz feature.

How to generate an interactive quiz

Gemini doesn't just give you a list of text-based questions; it can actually build a fully interactive practice test on your screen based on your own course materials.

1. **Log In:** Go to gemini.google.com and ensure you are signed in with your @torontomu.ca email.
2. **Upload your notes:** Click the "+" or "Upload" icon next to the chat bar.
3. **Write a specific prompt:** Tell Gemini exactly what to test you on. Include parameters like the number of questions, question types (multiple choice, short answer, scenario-based), difficulty level, and topic focus.

"Create a 10-question multiple-choice quiz on [topic] using my uploaded notes. Focus on application-based questions at a medium difficulty. Explain why each answer is correct or incorrect."

4. **Use the canvas panel:** Gemini will automatically open the interactive quiz in a side panel called "Canvas".

Why This Beats Passive Studying

- **Tailored to your material:** Because you uploaded your own notes, the quiz tests you on exactly what you've covered.
- **Instant feedback:** When you click an answer, Gemini immediately tells you if you are right or wrong and provides context.
- **Performance breakdown:** After finishing, Gemini gives you a score and highlights your weakest areas.

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Passive reading creates an “illusion of competence”, you feel like you know the material until the actual exam is in front of you. Quizzing yourself forces your brain to retrieve information, which is what actually builds memory.

4. Making flashcards with AI

Suggested AI tools:

- **Quizlet** → Best for reviewing & spaced repetition
- **ChatGPT / Google Gemini** → Best for generating and refining flashcards
- **NotebookLM** → Best for organizing notes + turning them into study sets
- **ProfGPT** → Best for course-specific help

Types of flashcards to generate:

- Question & answer
- Definition based
- Fill in the blank
- Calculation based questions

How to use flashcards effectively:

- 1) Start with 5-10 cards and focus on getting those right consistently before adding more.
- 2) Once you answer a card correctly 4 times in a row, you can remove it from your active pile, bring it back every 2nd or 3rd session to keep actively recall
- 3) This approach lets you spend more time on the cards you don't know well, rather than reviewing everything equally.

Academic integrity & AI:

- Don't upload lecture slides, assignments, or restricted materials into AI tools without permission
- Always check your school's AI policy:
[FAQs: Academic Integrity and AI Use at TMU](#)
- When unsure → **ask your professor first**

5. Important Limitations to Keep in Mind

Don't rely on AI alone: If your exam is paper-and-pencil, make sure you also practice answering questions in that format — without a screen in front of you. The conditions you practice in matter.

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Always verify AI's answers: AI can make mistakes or present confident-sounding but incorrect answers. Always cross-check AI-generated explanations with an authoritative source (textbook, course content, or professor) before accepting them as fact.

Watch Out for a false sense of competence: ⚠️ **Watch out!** If AI is always breaking down questions for you step-by-step, you may feel like you understand the material — but struggle when you have to figure it out on your own in an exam. Make sure you're regularly solving problems without AI assistance.

AI has limits for critical thinking: Flashcards and practice quizzes are great for memorizing content and following procedures. But many exams also require you to analyze, evaluate, and form arguments. AI is less effective at helping you build those skills — for that, you'll want to practice writing, discuss ideas with peers, or work through case studies independently.

⚠️ **Quick Tip:** A good rule of thumb is to only use AI to check your understanding, not build it from scratch