Crafting Your GenAI & AI Policy: A Guide for Instructors

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The Point of this Guide

This Guide is intended to help university instructors determine and write their course policy on whether students are allowed to use Generative Artificial Intelligence (GenAI) tools in the process of completing their academic work. In other words, their GenAI & Academic Integrity Policy.

In order to make that determination, instructors may have to learn more about GenAI, figure out how GenAI impacts their particular course learning outcomes, revise their course learning outcomes, and/or redesign their course assessments.

So, this Guide provides different entry points into the process, enabling instructors to choose where they might need to start. Want to jump right into crafting your GenAI & Academic Integrity Policy? You can. Already know about GenAI but want to first rethink your course learning outcomes? Then you can.

Choose your own adventure. There is no one, right way to proceed.
How to Use this Guide

OPTION #1: Proceed from slide to slide through the Guide from beginning to end - see Guide Contents for an overview

OPTION #2: Choose your Own Adventure

   a. **On Slide 5, pick your entry point**
   b. Each entry point - indicated by a blue diamond - is hyperlinked to a decision guide
   c. Review the decision guide to determine if that entry point is the right one for you
      ■ If it is - follow the flow chart to the next step
         ● Click on that next step (indicated by a green box) for practical guidance
      ■ If it isn’t, go to the next blue diamond
      ■ And so on

Regardless of the option you choose, the end point is the same for everyone - Crafting your GenAI & AI Policy for your Class!

NOTE:

- This Guide will continue to be updated, so bookmark it.
- To provide feedback on the Guide or ask questions, or to join a Community of GenAI in Learning, Teaching & Assessment Practice, [please contact us using this form](#)
The Contents of this Guide

1. **GenAI and Learning?**
   a. What is Generative AI
   b. What GenAI Can Do
   c. Why should I Care about GenAI
   d. How do I test GenAI Impact on my Class
   e. What GenAI Tools I Might Want Students to Use
   f. Additional Readings

2. **Revising Course Learning Outcomes**
   a. Learning Outcomes 101
   b. Why Should I Revise Learning Outcomes
   c. How do I Revise Learning Outcomes
   d. Additional Readings

3. **Redesigning Assessments**
   a. What are Assessments
   b. Why Rethink Assessments
   c. How to Redesign Assessments
   d. Practical Ideas for Updating Assessments
   e. Additional Readings

4. **Securing Assessments**
   a. Why do I have to Secure Assessments
   b. Why not Just Create a Culture of Integrity (and trust students)?
   c. What Assessments Should be Secure
   d. How can Assessments be Secured
   e. Additional Readings

5. **Crafting Your GenAI & AI Policy**
   a. Why a Written Policy is Needed
   b. Choosing a Policy Path
      i. Crafting your Banned Policy
      ii. Crafting your Conditional Use Policy
      iii. Crafting your Allowed Policy
   c. Practical Ideas
   d. Additional Readings
Will GenAI use undermine the course learning outcomes?

Can the learning outcomes be revised?

Can the assessments be redesigned?

Revise the learning outcomes

Redesign the assessment(s)

Secure the Assessment(s)

Craft Your GenAI & AI Policy

Allow GenAI Use

Will GenAI use undermine assessment validity?
Entry Point #1
GenAI & Learning
(to help you determine if GenAI use will undermine course learning outcomes)
Choose where to start by clicking on the box you want to explore. You can progress through the slides in order as well. The green topic box is the next topic.

What is Generative AI

What GenAI can do

Why should I care about GenAI

Additional Readings

AI Tools you might want students to use

How do I test its impact on my class

Entry Point #1: GenAI & Learning
What is Generative Artificial Intelligence (GenAI)

- GenAI is an umbrella term used to describe tools that have been developed to interact with users by taking input (aka "the prompt") from a user and combining it with data on which it has been trained to generate new material. Or, as BingChat puts it:
  
  "I am programmed to understand and generate human-like text, and to respond to user queries in a conversational manner. I use advanced machine learning techniques to generate my responses, and I am constantly learning and improving."

- GenAI has been around for a while, but it became an “overnight sensation” when OpenAI released their chatbot - ChatGPT 3 - in November 2022. Chat stands for “chatbot”, which is the interface that allows users to interact with the GPT platform (which is a large language model - LLM) in natural human language.

People are most familiar with ChatGPT, but other LLMs include Bing Chat, Google Bard, and Github’s Co-Pilot.

There are other GenAI tools as well that aren’t LLMs like Midjourney and Dall-E (image generators),

  The tools have varying abilities of generating text versus images, music, computer code, etc.
Comparison of LLMs by Ethan Mollick (Wharton School)

<table>
<thead>
<tr>
<th>MODEL</th>
<th>RUNS CODE</th>
<th>SEE IMAGES</th>
<th>READS FILES</th>
<th>INTERNET CONNECTION</th>
<th>PERSONALITY</th>
<th>WHAT IS IT</th>
<th>WHEN TO USE IT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ChatGPT/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Neutral, bland</td>
<td>This is the free version of ChatGPT that came out in November. It is very fast and pretty solid at writing and coding tasks.</td>
<td>It is fast and cheap and capable, but other models are now better. Also, it is not connected to the internet, so don't use it like a search engine.</td>
</tr>
<tr>
<td>GPT-3.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ChatGPT/</td>
<td>Soon</td>
<td></td>
<td></td>
<td></td>
<td>Helpful, a little preachy</td>
<td>Currently available to paying customers. The most powerful LLM for most purposes. Does a lot.</td>
<td>Better at everything (writing, coding, summarizing) than GPT-3.5. Still not connected to the internet.</td>
</tr>
<tr>
<td>GPT-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ChatGPT/</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Limited</td>
<td>Helpful sometimes witty</td>
<td>Adds new capabilities to ChatGPT. Plugins and web browsing still have rough edges. Code Interpreter lets the AI run Python code &amp; work with files.</td>
<td>Code Interpreter is great for working with data of all sorts, and is the most generally impressive AI implementation so far. Plugins are generally not that useful, yet. The web browsing is being updated.</td>
</tr>
<tr>
<td>Code Interpreter/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plugins</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bing</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Friendly but also somewhat insane</td>
<td>Connected to the internet. It is GPT-4 with a grab-bag of powerful features. The weirdest model. Creative mode lets you use GPT-4 and is free.</td>
<td>Does a remarkably wide range of stuff, from working as a browser companion to creating art. Is connected to the internet. Has a strong, weird personality.</td>
</tr>
<tr>
<td>(Uses GPT-4 in creative &amp; precise modes)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bard</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
<td>Bard is a name for a variety of models used by Google. Current offerings are weak, but improving over time</td>
<td>This should be your last choice of AIs for now, but recent updates show promise. High levels of hallucination.</td>
</tr>
<tr>
<td>Claude 2</td>
<td>Yes</td>
<td></td>
<td>No</td>
<td></td>
<td>Pleasant when not scolding</td>
<td>Almost as powerful at GPT-4, but built to be &quot;safer&quot; and more pleasant to use. Has 100k context window - enough &quot;memory&quot; to hold a book.</td>
<td>Terrific on working with large documents, due to its extended context window and ability to upload content. It is very new so it is unclear how it stacks up.</td>
</tr>
</tbody>
</table>

This Guide is focused on 3 LLMs - ChatGPT, Bing & Bard - in particular because they are the most used by students, are the most versatile across disciplines, and most familiar to the AI Office.

For more about using LLMs for computer programming, read [Leo Porter’s (Associate Teaching Professor, CSE) new book](#).
Entry Point #1: GenAI & Learning

The box in green is where you’re headed next if you continue to progress through the slides. Otherwise, you can click on the next topic you want to explore.

What is Generative AI

What GenAI can do

Why should I care about GenAI

Additional Readings

AI Tools you might want students to use

How do I test its impact on my class
What 3 particular GenAI LLMs Can Do
Microsoft’s Bing Chat
Bing Chat

- Microsoft’s product built on OpenAI’s GPT-4
- Generates content based on the input and its data (the internet in real-time)
- Can provide internet sources
  - But there often not the most legitimate sources
- Has 3 modes: creative, balanced & precise
- Can generate image responses and do image searching
- Does NOT keep a history of chats
- Allows for text or voice prompting

You can choose between my three modes - Precise, Balanced, and Creative - based on your needs.

- **Precise Mode:** This mode is best when you need specific information or a direct answer to your question. I will focus on providing the most accurate and detailed response possible.

- **Balanced Mode:** This is a middle ground between Precise and Creative modes. I will provide detailed responses, but with a bit more creativity and flexibility. This mode is useful when you’re open to exploring a topic more broadly.

- **Creative Mode:** Choose this mode when you want to see more imaginative and innovative responses. This could include generating poems, stories, songs, or even celebrity parodies. It’s also useful for brainstorming or when you’re looking for a more entertaining conversation.

Remember, you can switch between these modes at any time during our conversation! 😊
I apologize for the confusion earlier. Here are some general capabilities of Bing Chat:

1. **Search**: Bing Chat can perform web searches and provide search results in a JSON string format.

2. **Question Answering**: Bing Chat can answer questions on a wide range of topics, including current events, history, science, and more.

3. **Creative Content Generation**: Bing Chat can generate imaginative and innovative content such as poems, stories, code, essays, songs, celebrity parodies, and more using its own words and knowledge.

4. **Summarization**: Bing Chat can summarize content from various sources such as news articles, research papers, and more.

5. **Comparison**: Bing Chat can compare products or services based on user-defined criteria.

6. **Personal Assistant**: Bing Chat has secret chat modes that can be used to change the AI bot into a personal assistant to help with emotions and problems.

7. **Table Generation**: Bing Chat can create tables to help users compare products or services.

8. **Edge Integration**: Bing Chat is integrated with Microsoft Edge browser and can be accessed from the sidebar to provide quick assistance with simple queries such as booking appointments, making reservations, and finding directions.

I hope this helps!

Learn more: 1. microsoft.com  2. windowscentral.com  3. zdnet.com  4. ghacks.net
Bing Chat

AIO Analysis

- Bing Chat Creative Mode is fun for brainstorming or playing around with ideas and generating ideas.
- Bing Chat Precise & Balanced Modes are less, well, chatty. It is more difficult to get a lot of content out of it without asking question after question.
- It seems to have a lot more parameters built in, prohibiting it from doing certain things (and less able to be “tricked” to operating outside those parameters).
- Students are probably more likely to use it as a glorified search engine than as a way to cheat, at least on large, scaffolded assessments.
- Bing Chat would be very useful as a study tool, or, unfortunately, as a cheating tool for generating answers to online exam or homework questions.

Want to know more? Interact with Bing Chat yourself or click here for an exchange with Bing asking what it can do, and explaining what it can’t do.
Google’s Bard
Google Bard

- Generates content based on the input and its data (the internet in real-time)
- Can provide internet sources (sometimes, for simple things)
- Doesn’t have a creative side, so doesn’t provide advice or talk about sensitive topics
- Can generate output beyond text: image responses, coding, image search
- Is compatible with a variety of plug-ins, making it very versatile
- Keeps a history of chats
- Can export content to google docs, google sheets, etc.
- Allows for text or voice prompting

Source:
https://www.educatorstechnology.com/2023/05/google-bard-vs-chatgpt-teachers-guide.html
Bard is a large language model (LLM) from Google AI, trained on a massive dataset of text and code. It can:

- Generate different creative text formats of text content, like poems, code, scripts, musical pieces, email, letters, etc. Bard can be used to generate creative content for a variety of purposes, such as writing poems and stories, creating scripts for videos and plays, or generating code for software programs.

- Translate languages. Bard can translate text between over 200 languages, including English, Spanish, French, German, Chinese, and Japanese. This can be useful for researchers and students who need to access and understand information in other languages, or for businesses that need to communicate with customers and partners in different countries.

- Write different kinds of creative content. Bard can be used to write a variety of creative content, such as blog posts, articles, essays, and even books. This can be useful for researchers and students who need to publish their work, or for businesses that need to create content for their websites and social media pages.

- Answer your questions in an informative way, even if they are open ended, challenging, or strange. Bard can be used to answer a wide range of questions, from simple factual questions to complex open-ended questions. This can be useful for researchers and students who need to learn more about a topic, or for businesses that need to answer customer questions.

In addition to these capabilities, Bard is also able to:

- Learn and improve over time. Bard is constantly learning and improving its abilities, as it is exposed to new data and feedback. This means that it can become more accurate and informative over time.

- Be used in a variety of settings. Bard can be used in a variety of settings, including universities, businesses, and research institutions. This makes it a versatile tool that can be used for a variety of purposes.

I hope this summary of Bard’s capabilities is helpful. Please let me know if you have any other questions.
Google Bard

AIO Analysis

- It’s less functional than Bing Chat for internet searching, doing research, and finding sources
- But, it’s more likely to generate more output with less prompting than Bing requires.
- Students are probably least likely to use Bard at this point as it seems to be the least developed
- Bard would be somewhat useful as a study tool, or as a cheating tool for online exam or homework questions, but less helpful to generate essays or research papers.

Want to know more? Interact with Bard yourself or click here for an exchange with Bard asking what it can do, and explaining what it can’t do
OpenAI’s ChatGPT
-3.5 free version
-4 paid version
You are a teaching and learning expert within the university setting who has been asked to educate university faculty on what ChatGPT-3.5 can do. This isn't about what ChatGPT-3.5 can do specifically for teachers and students, but rather a summary of ChatGPT-3.5 capabilities. Write me 4-8 bullet points about ChatGPT-3.5 capabilities.

Certainly, here are 8 key capabilities of ChatGPT-3.5 that you can share with university faculty:

1. **Natural Language Understanding and Generation**: ChatGPT-3.5 can understand and generate human-like text, making it capable of carrying on coherent and contextually relevant conversations in a wide range of topics.

2. **Answering Questions**: It can provide detailed answers to factual questions, drawing from its extensive knowledge base, which spans a wide array of subjects up to its knowledge cutoff in September 2021.

3. **Text Completions and Generation**: ChatGPT-3.5 can help generate written content, such as essays, reports, articles, and creative writing pieces. It can assist students in crafting coherent and well-structured texts.

4. **Language Translation**: It is capable of translating text from one language to another, aiding language departments and students studying foreign languages.
ChatGPT 3.5's Explanation of its capabilities continued

5. **Coding Assistance**: ChatGPT-3.5 can provide coding help by generating code snippets, explaining programming concepts, and assisting with debugging issues, which can be particularly useful for computer science and engineering students.

6. **Idea Generation and Brainstorming**: It can aid in brainstorming sessions, suggesting ideas for research projects, creative endeavors, and innovative solutions across various disciplines.

7. **Concept Explanation**: ChatGPT-3.5 can simplify complex concepts by breaking them down into understandable explanations, assisting students in grasping challenging subjects.

8. **Simulations and Scenarios**: It can simulate dialogues, scenarios, and role-playing exercises, helping students practice communication skills, ethical dilemmas, and real-world interactions.

Remember, while ChatGPT-3.5 offers these capabilities, it's essential to use it as a tool to supplement traditional teaching methods and foster critical thinking, rather than as a replacement for human interaction and expertise.
You are a teaching and learning expert within the university setting who has been asked to educate university faculty on what ChatGPT-4 can do. This isn't about what ChatGPT-4 can do specifically for teachers and students, but rather a summary of ChatGPT-4 capabilities. Write me 4-8 bullet points about ChatGPT-4 capabilities. Then, produce a compare and contrast table outlining the differences between ChatGPT-3.5 and ChatGPT-4.

ChatGPT-4 Capabilities:

1. **Natural Language Understanding and Generation:** ChatGPT-4 can understand a wide variety of user inputs and respond in coherent, contextually appropriate ways. It can hold conversations, answer questions, and produce written content in a manner similar to a human.

2. **Broad Knowledge Base:** Trained on a diverse set of internet texts up to September 2021, ChatGPT-4 can provide information on a myriad of topics including science, history, culture, and more.

3. **Multilingual Capabilities:** While primarily designed for English, ChatGPT-4 is capable of understanding and generating text in multiple languages, even though its proficiency is highest in English.

4. **Content Customization:** ChatGPT-4 can be prompted to write in different styles, tones, or formats, making it adaptable to various tasks and audiences.
ChatGPT 4 (paid subscription)

ChatGPT-4’s Explanation of its capabilities continued

5. **Assistive Features:** Beyond pure information delivery, ChatGPT-4 can help users brainstorm, write, code, and more. It's a versatile tool for multiple professional settings.

6. **Iterative Feedback Loop:** If given context or if user feedback is provided, ChatGPT-4 can adjust or refine its responses in a conversation.

7. **Ethical Considerations:** ChatGPT-4 incorporates measures to avoid harmful outputs or promoting misinformation, although it's not infallible. Users are encouraged to fact-check and use responsibly.

8. **Continuous Learning Limitation:** While ChatGPT-4 is vast in its knowledge, it doesn't learn or remember personal user data, ensuring user privacy.
ChatGPT 4 (paid subscription)
ChatGPT-4’s Explanation of its capabilities continued

<table>
<thead>
<tr>
<th>Feature/Capability</th>
<th>ChatGPT-3.5</th>
<th>ChatGPT-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training Data</td>
<td>Up to an earlier cutoff date.</td>
<td>Up to September 2021.</td>
</tr>
<tr>
<td>Model Size</td>
<td>Smaller in terms of parameters.</td>
<td>Larger, offering potentially more nuanced responses.</td>
</tr>
<tr>
<td>Accuracy</td>
<td>Highly accurate, but with occasional limitations.</td>
<td>Enhanced accuracy and improved context retention.</td>
</tr>
<tr>
<td>Multilingual Support</td>
<td>Supports multiple languages.</td>
<td>Better proficiency and wider language support.</td>
</tr>
<tr>
<td>Response Time</td>
<td>Variable depending on the implementation.</td>
<td>Typically faster, but also varies.</td>
</tr>
<tr>
<td>Ethical Safeguards</td>
<td>Has some built-in content filters.</td>
<td>Improved measures to reduce harmful outputs.</td>
</tr>
<tr>
<td>Versatility</td>
<td>Highly versatile in many tasks.</td>
<td>Enhanced versatility across an even broader range of tasks.</td>
</tr>
<tr>
<td>Iterative Feedback</td>
<td>Limited feedback adjustment.</td>
<td>More refined ability to adjust based on feedback.</td>
</tr>
</tbody>
</table>

It's important to note that while ChatGPT-4 represents an improvement over its predecessor, both models have shared strengths and capabilities. The main differences lie in the fine-tuning, scale, and minor advancements in handling complex interactions.
ChatGPT-3.5 & 4

AIO Analysis

- Both are highly functional and very helpful for generating a lot of content fast across many disciplines
  - Computer science, languages, arts and humanities, social sciences, physical sciences, business, etc.
- There are limitations of the training data set (up to 2021)
  - but plugins can get GPT-4 connected to the internet
- Students are probably most likely to use ChatGPT because it has received the most exposure in the media/social media
  - And more likely to use GPT-3.5 since its free
  - keep in mind that students may also use GenAI tools built into their existing favorite tools like SnapGPT
- We find ChatGPT-4 to be the most useful as a cheating tool as it will generate answers to anything and everything (even if sometimes it’s wrong)
  - It can now also provide real citations with hyperlinks to publications from 2021 or earlier
- Keeps a history of chats (unless the user opts not to), which you will see in the Policy section that this can be helpful.

Want to know more? Interact with ChatGPT yourself or click here for an exchange with ChatGPT-4 asking what it can do, and explaining what it can’t do. Need help getting started?
And there are many more GenAI Tools that exist

Claude.ai - a chatbot similar to ChatGPT, Bing & Bard

Consensus.app - answer any question about anything!

Wolfram Alpha - an oldie but a goodie - provides answers in Math, Science, Society, etc.

MathGPTPro - solving advanced mathematics questions

Humata AI - an LLM that can summarize and synthesize articles, and answer questions about those articles (as well as generate new content)

Orygo AI - reads and generates explanations of research so you don’t have to!

PaperBrain - interface between “reader” and reading - ask the AI what the paper/reading is about - the AI of cliff/sparks notes

For a comprehensive and constantly updated inventory of AI tools, check out Futurepedia
Entry Point #1: GenAI & Learning

The box in green is where you're headed next if you continue to progress through the slides. Otherwise, you can click on the next topic you want to explore.

What is Generative AI

What GenAI can do

Why should I care about GenAI

Additional Readings

AI Tools you might want students to use

How do I test its impact on my class
Why Should I Care about the impact of these GenAI tools on my class learning outcomes?
Students are using it and they are using it more than you are!

Survey question: "Which of the following best describes your own use of generative AI writing tools (e.g., ChatGPT)?" Students n=2,056, instructors n=1,692, administrators n=205
Source: Time for Class survey 2023, Tyton Partners analysis
Students are using the tools because they believe that they will be helpful and have a positive impact on their learning.

BELIEFS ABOUT GENERATIVE AI WRITING TOOLS’ IMPACT ON STUDENT LEARNING

<table>
<thead>
<tr>
<th></th>
<th>Administrators</th>
<th>Instructors</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>141</td>
<td>819</td>
<td>872</td>
</tr>
<tr>
<td>AI user</td>
<td>52%</td>
<td>54%</td>
<td>23%</td>
</tr>
<tr>
<td>Non-user</td>
<td>48%</td>
<td>46%</td>
<td>77%</td>
</tr>
<tr>
<td>“I believe AI generative writing tools will have a negative effect on student learning”</td>
<td>14%</td>
<td>22%</td>
<td>22%</td>
</tr>
<tr>
<td>Neutral</td>
<td>40%</td>
<td>29%</td>
<td>35%</td>
</tr>
<tr>
<td>“I believe AI generative writing tools will have a positive effect on student learning”</td>
<td>36%</td>
<td>50%</td>
<td>54%</td>
</tr>
</tbody>
</table>

Notes: Survey question: “For the next few questions, please read each pair of statements and decide to what extent you agree with one more than the other. If you are exactly neutral, please move the slider to center to record your response as ‘Neutral’.” Positive = 0-33, Neutral = 34-66, Negative = 67-100
Source: Tyton Partners, Time for Class 2023
Ignoring the impact of GenAI Tools on your Course Learning Outcomes undermines:

- **teaching**
  - you’re not teaching the skills/knowledge you think you are
- **learning**
  - the students aren’t learning what we intended
- **assessment integrity**
  - we aren’t evaluating what we think we are
- **degree integrity**
  - Students don’t have the knowledge & skills we say they do
Entry Point #1: GenAI & Learning

The box in green is where you're headed next if you continue to progress through the slides. Otherwise, you can click on the next topic you want to explore.

What is Generative AI

What GenAI can do

Why should I care about GenAI

Additional Readings

AI Tools you might want students to use

How do I test its impact on my class
How do I figure out how it will impact my course learning outcomes?
Try it out!

Two choices (depending on your comfort level):

Use some pre-existing prompts from others

OR

Copy and paste your own course learning outcomes (or an assessment prompt designed to measure the learning outcome) into one of the tools

* The second is more helpful, but some instructors are worried about: 1) helping to train the tools with their intellectual property; 2) unanswered copyright questions with GenAI. Having said that, your students likely have already or will be pasting your prompts into GenAI anyway. Regardless, you can opt out of OpenAI retaining and using your input.
## Testing Course Learning Outcomes

On successful completion of this course, students will be able to:

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>ChatGPT-3.5 Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>● outline significant curriculum and assessment theories, models and research in the higher-education sector.</td>
<td><a href="https://chat.openai.com/share/ed426f8a-63e2-4651-8c14-113dcf2909da">https://chat.openai.com/share/ed426f8a-63e2-4651-8c14-113dcf2909da</a></td>
</tr>
<tr>
<td>● critically analyse disparate sources of information about WWII.</td>
<td><a href="https://chat.openai.com/share/e7b76145-cbed-4603-b53a-3a829953444e">https://chat.openai.com/share/e7b76145-cbed-4603-b53a-3a829953444e</a></td>
</tr>
<tr>
<td>● evaluate concepts of race, culture, identity and diversity with regards to indigenous education.</td>
<td><a href="https://chat.openai.com/share/b0d7bf2a-902c-4caf-b78b-fdaa9325c526">https://chat.openai.com/share/b0d7bf2a-902c-4caf-b78b-fdaa9325c526</a></td>
</tr>
</tbody>
</table>

**Conclusion:** ChatGPT-3.5 is very useful for faking achievement of KNOWLEDGE level learning outcomes, even if only at the C level (but Cs get degrees!)

The above course learning outcomes were copied from [this website](https://chat.openai.com/share/ed426f8a-63e2-4651-8c14-113dcf2909da)
# Testing Course Learning Outcomes

On successful completion of this course, students will be able to:

<table>
<thead>
<tr>
<th>Skills</th>
<th>ChatGPT-3.5 Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>● plan and develop an independent research project that uses research methodologies that are appropriate to the discipline.</td>
<td>ChatGPT can do some of the lifting of planning and developing, so perhaps planning &amp; developing should not be the ultimate outcomes; instead, raise this outcome to “implementing and communicating orally about the project” (while allowing GenAI use to help plan and develop)</td>
</tr>
<tr>
<td>● communicate through oral presentations using visual, verbal and written information.</td>
<td>Obviously, ChatGPT cannot communicate orally, but students could use ChatGPT to generate the content, other GenAI tools to create the slidedeck, and, if the presentation is over zoom or recorded, still other GenAI tools to make it appear as if they (rather than AI) are giving the presentation</td>
</tr>
<tr>
<td>● apply technical skills in creating and formatting digital media content, including 2D animation.</td>
<td>GenAI tools are really good and creating and formatting digital media content, including 2D animation, so updating this learning outcome for GenAI era might mean that the instructor has to evaluate process (the student doing the work) rather than only the final product</td>
</tr>
</tbody>
</table>

The above course learning outcomes were copied from this website.
<table>
<thead>
<tr>
<th>Application of knowledge and skills</th>
<th>ChatGPT-3.5 Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>• analyse electrical engineering problems in industrial settings.</td>
<td>ChatGPT can achieve this generic learning outcome, generically. This is another example of a learning outcome might be okay, as long as there is an assessment of this process in action, rather than an assessment of it through product.</td>
</tr>
<tr>
<td>• demonstrate critical reflection on their professional knowledge and skills, incorporating broad subject knowledge and perspectives.</td>
<td>This would be hard for a GenAl tool to do, basically because the learning outcome isn’t sufficiently specific (i.e., it’s not a good GenAl prompt!). Whether students could use a GenAl tool to help them along the way to achieve this outcome, depends on the assessments.</td>
</tr>
<tr>
<td>• communicate architectural and built-environment ideas through the medium of film.</td>
<td>GenAl tools might do some lifting of this for students, see ChatGPT-3.5 and Bard, but ultimately, at this point in time, much of this learning outcome would need to be accomplished by a human.</td>
</tr>
</tbody>
</table>

The above course learning outcomes were copied from this website.
Testing Course Learning Outcomes: Conclusion

1. The higher the learning outcomes are on Bloom’s Taxonomy, the less useful GenAI tools are for undermining them.
2. The method of assessment of the learning outcome will also determine how useful GenAI is for undermining the intended learning (i.e., cheating).
3. Analyzing your own course learning outcomes might help you decide if, when and under which conditions might a student use GenAI to actually help them achieve the learning outcome (i.e. allow them to cognitively offload lower level tasks necessary to achieve higher level learning).
Entry Point #1: GenAI & Learning

The box in green is where you're headed next if you continue to progress through the slides. Otherwise, you can click on the next topic you want to explore.

What is Generative AI

What GenAI can do

Why should I care about GenAI

Additional Readings

AI Tools you might want students to use

How do I test its impact on my class

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GenAI Tools You Might Want Students to Use (to help them achieve the learning outcomes)
GenAI Tools you might want students to use for Research

- ResearchRabbit
  - Reimagine Research
  - We're rethinking everything: literature search, alerts, and more

- scite
  - Find appropriate references and data when writing papers
  - Start your free 7-day trial

- Elicit
  - Try the new version of Elicit
  - You've launched new workflows that help you extract data from 100 PDFs and summarize concepts across papers

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Collaborate with anyone, anywhere.
Use Hypothesis to annotate anything online with classmates, colleagues, or friends. Create a free personal account, or talk to our sales team about Education solutions.
Entry Point #1: GenAI & Learning

The box in green is where you're headed next if you continue to progress through the slides. Otherwise, you can click on the next topic you want to explore.

What is Generative AI → What GenAI can do → Why should I care about GenAI

Additional Readings → AI Tools you might want students to use → How do I test its impact on my class

Next Step
Additional Readings

More Food for Thought

- ChatGPT in Higher Education: Artificial Intelligence and its Pedagogical Value
- Three Things to Know about AI Tools and Teaching
- I’m a Student. You have no Idea How Much We’re Using ChatGPT
- Professors Craft Courses on ChatGPT with ChatGPT
- ChatGPT and large language model bias
- ChatGPT: Bullshit Spewer or the End of Traditional Assessments in Higher Education?
- Exploring the Potential of Generative Artificial Intelligence in Education: Applications, Challenges, and Future Research Directions
- Why ChatGPT & Bing are so Good at Making Things Up
- The Difference between Generative AI and Traditional AI: An Easy Explanation for Anyone

Fun With GenAI

- Did a Fourth Grader Write this? Or ChatGPT? (You can play the game!)
- South Park’s Deep Learning Episode (cautionary note: it’s SouthPark so some may find it offensive)
- A GPT-4 Capability Forecasting Challenge

Practical Resources

- A Wired Comparison of ChatGPT, Bing & Bard
- An AVID Open Access Comparison of ChatGPT, Bing & Bard
- Learn More About Artificial Intelligence
- Learn More About ChatGPT-4
- ChatGPT in Higher Education (a brief book)
- Generative AI is Only as Good as the Prompt You Give It
- The Art of ChatGPT Prompting
- GenAI Chatbot Prompt Library for Educators
- Generative AI Prompt Literacy from University of Michigan-Flint
- AI Prompts for Teaching
Will GenAI use undermine the course learning outcomes?

NO

Can the learning outcomes be revised?

NO

Can the assessments be redesigned?

NO

Secure the Assessment(s)

YES

Will GenAI use undermine assessment validity?

NO

Craft Your GenAI & AI Policy

YES

Revise the learning outcomes

Redesign the assessment(s)

Allow GenAI Use

Next entry point
Entry Point #2
Revising Learning Outcomes
Entry Point #2: Revising Learning Outcomes

Choose where to start by clicking on the box you want to explore. You can progress through the slides in order as well. The green topic box is the next topic.

Learning Outcomes: 101

Why should I revise Learning Outcomes

Additional Readings

How do I revise?
Learning Outcomes 101
Watch this Video by Paul Hadjipieris, UC San Diego Learning Development Specialist, to learn what Learning Outcomes are, why they are important, and how you can write them.
Video (Slide 31) Referenced Resource: Bloom’s Taxonomy

Bloom’s Taxonomy (1956; Anderson & Krathwohl, 2001) classifies thinking into six levels of increasing complexity (lower order thinking skills to higher order thinking skills). It is a useful resource when determining the level of our educational goals and what evidence we are looking for in how our students’ demonstrate achievement of those goals. Depending on where a course falls within a curriculum, course level learning outcomes will likely target multiple levels of thinking described in Bloom’s Taxonomy. Since Program Learning Outcomes (PLOs) reflect what we want students to know, be able to do, and what we want them to value at the completion of their program, PLOs will likely target higher order thinking.

- **Produce new or original work**
  - adapt, arrange, collect, compose, create, design, develop, formulate, invent, plan, produce, rearrange, reconstruct, write

- **Justify a stand or decision**
  - appraise, argue, assess, conclude, convince, critique, deduce, defend, evaluate, hypothesize, judge, justify, recommend

- **Draw connections among ideas**
  - analyze, calculate, compare, contrast, differentiate, distinguish, explain, illustrate, manipulate, modify, predict

- **Use information in new situations**
  - apply, chart, construct, demonstrate, illustrate, modify, produce, show, sketch, solve, write

- **Explain ideas or concepts**
  - classify, demonstrate, describe, explain, express, interpret, organize, paraphrase, summarize

- **Recall facts and basic concepts**
  - define, identify, label, list, locate, match, name, recognize, select, state

Learning Outcomes at the Apply or higher level are harder for GenAI tools to achieve.
Before you Jump to Reviewing & Revising

L. Dee Fink says that you should consider the Situational Factors of your course, which include the:

1. specific class context
   a. How many students are in the class?
   b. Is the course at the lower division, upper division, or graduate level?
   c. How long and frequent are the class meetings?
   d. Will the course be delivered live, online, in a laboratory, etc.?
   e. What physical elements of the learning environment will affect the class?

2. university context
   a. What learning expectations are placed on this course by the university, the college, one or more of the institution’s curricula, one or more professions, and society in general?

3. nature of the subject.
   a. Is this subject primarily theoretical, practical, or a combination?
   b. Is it primarily convergent or divergent?
   c. Are there important controversies or recent changes within the field?

4. learner characteristics
   a. What are the life situations of the learners (what percent work, have family responsibilities, have a specific professional goal, etc.)?
   b. What prior knowledge and experiences relevant to this subject have students had?
   c. What are their goals and expectations of the course?

5. instructor characteristics
   a. What beliefs and values do you have about teaching and learning?
   b. What level of knowledge do you have about the subject?
   c. What are your teaching strengths and weaknesses?
“impose definite limitations and guidelines on those seeking to design a significant learning experience. For example, if the course is intended to provide background for more advanced courses, it is essential to understand the expectations of those teaching such courses. Similarly, if most students begin the class with an apathetic attitude toward the subject matter, the course design needs to recognize this and incorporate special motivational features. Once situational factors have been identified and considered, the instructor is prepared for the next step in the design process, namely the establishment of learning goals.”

L. Dee Fink, Integrated Course Design
Entry Point #2: Revising Learning Outcomes

The box in green is where you're headed next if you continue to progress through the slides. Otherwise, you can click on the next topic you want to explore.

Learning Outcomes: 101

Why should I revise Learning Outcomes?

Additional Readings

How do I revise?
Why should I review and possibly revise learning outcomes for the GenAI era?
Reasons to Revise Learning Outcomes for the GenAI Era

Reason #1: Course Learning Outcomes should regularly be reviewed (and possibly revised) regardless of GenAI

“Assessment is an iterative process and it is good practice to revisit your learning outcome statements regularly – particularly as you change the way the course is being taught and/or the content of your course (Wiggins & McTighe, 2005).”
Reasons to Revise Learning Outcomes for the GenAI Era

Reason #2: GenAI can quickly and easy complete low-level or generic learning outcomes

See next slide for examples of how ChatGPT-4 generated responses to 6 learning outcomes.
### ChatGPT-4 Responses to 6 Learning Outcomes

<table>
<thead>
<tr>
<th>Bloom’s Level</th>
<th>Example</th>
<th>ChatGPT-4 Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Create</strong></td>
<td>Develop and defend a policy brief informed by existing political phenomena.</td>
<td><a href="https://chat.openai.com/share/2257106e-5d88-47e4-8b48-a74a42cb99cb">https://chat.openai.com/share/2257106e-5d88-47e4-8b48-a74a42cb99cb</a></td>
</tr>
<tr>
<td><strong>Evaluate</strong></td>
<td>Assess an existing political institution and recommend evidence-based modifications to improve democratic governance.</td>
<td><a href="https://chat.openai.com/share/a1b57b6b-3207-42d4-b221-b141b0ad297c">https://chat.openai.com/share/a1b57b6b-3207-42d4-b221-b141b0ad297c</a></td>
</tr>
<tr>
<td><strong>Analyze</strong></td>
<td>Compare and contrast different forms of government and the significant historical figures represented with each regime.</td>
<td><a href="https://chat.openai.com/share/669ca5b4-a0bc-432b-8cad-5ce7b7a1a284">https://chat.openai.com/share/669ca5b4-a0bc-432b-8cad-5ce7b7a1a284</a></td>
</tr>
<tr>
<td><strong>Apply</strong></td>
<td>Write an argument supporting a political party platform and integrate relevant evidence from the texts.</td>
<td><a href="https://chat.openai.com/share/d64b6463-e705-477e-b79a-101f6255c33a">https://chat.openai.com/share/d64b6463-e705-477e-b79a-101f6255c33a</a></td>
</tr>
<tr>
<td><strong>Understand</strong></td>
<td>Explain contrasting political theories from different vantage points.</td>
<td><a href="https://chat.openai.com/share/7382c51d-4eee-47d3-b720-3c4346d4af36">https://chat.openai.com/share/7382c51d-4eee-47d3-b720-3c4346d4af36</a></td>
</tr>
<tr>
<td><strong>Remember</strong></td>
<td>Define relevant vocabulary for international affairs discourse.</td>
<td><a href="https://chat.openai.com/share/28392fdf-bb7f-4373-95f1-dddbb4404787">https://chat.openai.com/share/28392fdf-bb7f-4373-95f1-dddbb4404787</a></td>
</tr>
</tbody>
</table>

**Adapted from the following:**
2. Bloom’s Verbs, UC San Diego Teaching + Learning Commons [https://digitallearning.ucsd.edu/_files/blooms_verbs.pdf](https://digitallearning.ucsd.edu/_files/blooms_verbs.pdf)
4. Undergraduate Program Learning Outcomes, Department of Political Science, UC San Diego.
Reasons to Revise Learning Outcomes for the GenAI Era

Reason #3: Maybe students can (and should) cognitively offload some tasks to GenAI

For example, learning outcomes related to spelling, grammar, and reference formatting used to be quite common. They have largely been eliminated because students now cognitively offload those tasks to machines.

Question for you:

Are you still trying to assess learning that students no longer need to do in your course?

If yes, you could replace those learning objectives with others.
Reasons to Revise Learning Outcomes for the GenAI Era

Reason #3 (cont’d): Maybe students can (and should) cognitively offload some tasks to GenAI

For example, sometimes courses are assessing learning that is tangential to the purpose of the course, like writing in a non-writing focused course, or math in a non-math course, or statistical analysis in a research-writing course.

Questions to consider:
What is the purpose of your course?
Are all of your learning outcomes directly related to that purpose?
If not, could you remove those indirectly or unrelated learning outcomes?
Reason #4: learning how to use A.I. critically and ethically may need to be taught in relation to your discipline

Should you think about adding in any learning outcomes that focus on the use of Generative A.I. tools given the trajectory of your discipline?

For example: “students will critically analyze ChatGPT output pertaining to [some disciplinary concept] for bias, accuracy, evidence, misinformation, and logic.”
Entry Point #2: Revising Learning Outcomes

Learning Outcomes: 101

Why should I revise Learning Outcomes

Additional Readings

How do I review & revise?

The box in green is where you’re headed next if you continue to progress through the slides. Otherwise, you can click on the next topic you want to explore.
How to Review & Revise Learning Outcomes
How to Revise Course Learning Outcomes

Idea #1 Replace those that are no longer necessary

- Are there outcomes that are no longer necessary to assess because they are not foundational knowledge (needed for higher order thinking) and can be offloaded to machines?

Idea #2 Tweak others to:

- move them up Bloom’s Taxonomy of Learning
  - see next slide for an example
- Make them more meaningful/authentic
  - Have students apply them to real-life and contemporary situations
- Build in learning accountability
  - Require a public demonstration of the achievement of the learning outcome (this gets us more into assessment redesign, but important to think of it at this stage as well)
How to Revise Course Learning Outcomes

How to use ChatGPT to Revise your Learning Outcomes

P = You are going to rewrite the following learning outcome (paste the learning outcome into the chatbot)

R = give it your role (i.e., “you are a professor of X skilled at writing and revising learning outcomes. You want to update your learning outcomes to make it less likely that students will outsource their learning to GenAI tools.”)

E = tell it explicitly what you do or don’t want it to do (e.g., do keep it focused on the same content)

P = tell the chatbot the grade level (e.g., entry level university course vs senior university course), the size of the class, the composition of the class (e.g., majors only, majors and non-majors), and other course information (e.g., required or not required; EDI course or not)
You are going to rewrite the following learning outcome "Define relevant vocabulary for international affairs discourse." You are a professor of political science skilled at writing and revising learning outcomes. You want to update this learning outcome to make it less likely that students could outsource their learning to GenAI tools. You want to ensure that students still know, understand and can applying relevant vocabulary for international affairs discourse, but this learning outcome - focused on "defining" - seems too easy to farm out to GenAI. So, you want to move it up Bloom's taxonomy of learning. This learning objective is for a 300 person introductory level poli sci class, filled with students at all undergraduate levels (from 1st to 4th years), majors and non-majors. It is a required course for poli sci majors, but a social science elective course for the non-majors.

ChatGPT-4's Output

Considering the need to move the learning outcome up Bloom's taxonomy while still ensuring that students engage with the vocabulary authentically, the revised learning outcome might emphasize application, analysis, or evaluation. Here's a suggested rewrite:

"Analyze and evaluate real-world scenarios in international affairs using appropriate and relevant vocabulary, demonstrating an understanding of their nuanced meanings and implications in different contexts."

This revised outcome:

1. Moves up the taxonomy from "define" (which is at the knowledge level) to "analyze" and "evaluate" (which are at higher cognitive levels).
2. Ensures that students cannot merely use a GenAI tool to fetch definitions but must understand the nuanced meanings and implications of the vocabulary terms.
3. Makes the outcome relevant and applicable to real-world scenarios, which can be especially engaging and relevant for a diverse group of students in an introductory class.
Entry Point #2: Revising Learning Outcomes

The box in green is where you're headed next if you continue to progress through the slides. Otherwise, you can click on the next topic you want to explore.
Additional Readings

**A Taxonomy for Learning, Teaching & Assessing: A Revision of Bloom’s Taxonomy of Educational Objectives**

**Opinion Pieces**
- GPT-4 Can Already Pass Freshman Year at Harvard: Professors Need to Adapt to their Students’ New Reality-FAST
- Bloom and Grow - teaching in the era of ChatGPT
- How Can Generative AI intersect with Bloom’s Taxonomy

**Practical Application**
- Yale’s Writing Intended Learning Outcomes with Bloom’s Taxonomy
- University of Wisconsin-Madison’s Writing Student Learning Outcomes

Want step-by-step help rewriting your Learning Outcomes?

[Check out this Learning Outcome Generator from Indiana University](#)
Will GenAI use undermine the course learning outcomes?

Can the learning outcomes be revised?

Can the assessments be redesigned?

Will GenAI use undermine assessment validity?

Revise the learning outcomes

Redesign the assessment(s)

Secure the Assessment(s)

Craft Your GenAI & AI Policy

Allow GenAI Use

Next entry point
Entry Point #3 Redesigning Assessments in the Era of GenAI
Entry Point #3: Redesigning Assessments

Choose where to start by clicking on the box you want to explore. You can progress through the slides in order as well. The green topic box is the next topic.

What are Assessments

Why Rethink Assessments

Additional Readings

How to Redesign Assessments

Practical Ideas for Updating Assessments

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What are Assessments?
### What are Assessments?

Assessments are activities we have students do for one of two reasons:

- to facilitate learning by providing frequent feedback (formative)
- to evaluate the learning that has occurred (summative)

#### Formative and Summative Assessment

<table>
<thead>
<tr>
<th>FORMATIVE ASSESSMENT</th>
<th>SUMMATIVE ASSESSMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gathering information to guide improvements in ongoing teaching and learning</td>
<td>Gathering and reporting information to measure the extent to which students have achieved proficiencies in a course or program</td>
</tr>
</tbody>
</table>

#### Formative and Summative Assessment: Examples

<table>
<thead>
<tr>
<th>FORMATIVE ASSESSMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>- In-class polling</td>
</tr>
<tr>
<td>- Weekly quizzes</td>
</tr>
<tr>
<td>- Journaling</td>
</tr>
<tr>
<td>- Essay drafts</td>
</tr>
<tr>
<td>- Discussion boards</td>
</tr>
<tr>
<td>- Exit tickets</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUMMATIVE ASSESSMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Final projects</td>
</tr>
<tr>
<td>- Research papers</td>
</tr>
<tr>
<td>- Exams</td>
</tr>
<tr>
<td>- Position or policy paper</td>
</tr>
<tr>
<td>- Performance or recital</td>
</tr>
</tbody>
</table>
Formative Assessments

- Those given to facilitate the students learning or acquisition of skills and knowledge
- The main goal is to provide students with practice, experience, and feedback in order to improve their learning
- If grades are given at all for formative assessments, they should only be minimal and given for completion or submission, not for accuracy
- For example:
  - practice problems
  - homeworks
  - drafts of a summative assessment
  - lab work
  - peer reviews
  - discussion board posts
Summative Assessments

- evaluate if the student has achieved a learning objective and to what extent
- need to be valid measures of student learning because these assessments determine if:
  - A student is ready to move on to the next course in the sequence
  - A student has earned a certification of their knowledge and abilities (i.e., a degree)
- For example:
  - Tests
  - Research papers
  - Take-home exams
  - Essays
  - Projects
All assessments should be clearly tied to the learning outcomes.
### Example Assessments for the Learning Objectives

**previously seen on Slide 35**

<table>
<thead>
<tr>
<th>Bloom's Level</th>
<th>Example</th>
<th>Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Create</strong></td>
<td>Develop and defend a policy brief informed by existing political phenomena.</td>
<td>Policy proposal, structured debate, research project, oral examination</td>
</tr>
<tr>
<td><strong>Evaluate</strong></td>
<td>Assess an existing political institution and recommend evidence-based modifications to improve democratic governance.</td>
<td>Case study, journal article or book critique, learning journal, peer review, video or audio recording</td>
</tr>
<tr>
<td><strong>Analyze</strong></td>
<td>Compare and contrast different forms of government and the significant historical figures represented with each regime.</td>
<td>Literature review, concept map, debate, case study, research paper, discussion forums</td>
</tr>
<tr>
<td><strong>Apply</strong></td>
<td>Write an argument supporting a political party platform and integrate relevant evidence from the texts.</td>
<td>Essay, presentation, scenario response, short answer response</td>
</tr>
<tr>
<td><strong>Understand</strong></td>
<td>Explain contrasting political theories from different vantage points.</td>
<td>Discussions, reading summaries, identifying political theories, concept map, true or false quiz questions, group discussion</td>
</tr>
<tr>
<td><strong>Remember</strong></td>
<td>Define relevant vocabulary for international affairs discourse.</td>
<td>Multiple choice, fill in blank, recite, word/definition match, polling questions</td>
</tr>
</tbody>
</table>

Adapted from the following:
2. Bloom’s Verbs, UC San Diego Teaching + Learning Commons [https://digitallearning.ucsd.edu/_files/blooms_verbs.pdf](https://digitallearning.ucsd.edu/_files/blooms_verbs.pdf)
4. Undergraduate Program Learning Outcomes, Department of Political Science, UC San Diego.
Entry Point #3: Redesigning Assessments

The box in green is where you're headed next if you continue to progress through the slides. Otherwise, you can click on the next topic you want to explore.

What are Assessments

Why Rethink Assessments

How to Redesign Assessments

Additional Readings

Practical Ideas for Updating Assessments
Why Rethink Assessments in the GenAI era?
Why Rethink Assessments in the GenAI Era?

Reason #1: To maintain assessment validity, the only other options are Banning GenAI or Securing every assessment

- Banning won’t work (students will use it anyway) and violations of the ban won’t be easily detected
  - Most AI Detectors do NOT work
    - they are often wrong
    - may be biased with non-native English writing
    - are easily thwarted
    - see this research study

- Securing every assessment (i.e., having students complete them in a proctored setting) may:
  - disproportionately disadvantage students with disabilities
  - take a lot of resources (and class time)
  - not be the right choice for assessing all learning outcomes
Why Rethink Assessments in the GenAI Era?

Reason #2: Our graduates may be expected to be able to work with, not without, GenAI tools

- Incorporating GenAI tools into assessments may better equip our students for life after graduation
Why Rethink Assessments

Reason #3: Necessary to maintain student engagement in the learning process

- Assessments need to be rethought from time to time due to advances in technology, changes in the student population, or evolution of knowledge.
- Students will cognitively offload their academic work (and therefore not learn what was intended) if the assessment seems “out-of-date” and easy to complete with GenAI.
  - Partly because they see cognitively offloading often allowed during assessments:
    - Using an authorized notes sheet during a test
    - Using a calculator on a math-based test
    - Using spelling/grammar check in a paper
    - Using RefWorks to create a formatted list of references
    - Working with a partner
- Authentic assessments are more likely to keep students focused on learning (rather than cheating).
Pre-GenAI Example of Cognitive Offloading

- A Math professor assigns homework from the practice problems at the end of a textbook chapter.
- The students copy from the textbook solutions and submit those copies for academic credit.
- The professor grades those submissions.
- The grades represent the students’ ability to copy and paste, not the students’ knowledge and abilities in MATH.
- The assessment has no (limited?) validity.

GenAI Example of Cognitive Offloading

- A Psychology professor assigns an annotated bibliography
- The students use ChatPDF to summarize the articles, runs those summaries through Quillbot, and then copies and pastes the summaries into their annotated bibliography document.
- The professor grades the Annotated Bibliographies
- The grades represent the students’ ability to use GenAI, not the students’ abilities to critically read and summarize research articles
- The assessment has no (limited?) validity.
Example of Easy Cognitive Offloading to GenAI

Describe and analyze the processes by which a distinctively American identity was created and changed over time. What historical forces and events helped to forge this identity? In what specific ways has this identity been contested? Has this identity been broad and inclusive, or has it tended to create un-American or non-American “Others?”

Prompt found here
Heuristic for Determining if You Should Rethink Your Assessments

1. Is it an out-of-class assessment?
2. Is it written?
3. Does it require only lower-order skills?
4. Is the answer easily/readily generated and/or copied/pasted from online?
5. Is your assessment recycled from other quarters/classes?
6. Do you have the time and knowledge to rethink?

If yes to one or more of the above, need to rethink!

Another Heuristic: Phil Newton’s Tool for Determining if you should rethink your assessments

### Tool for Identifying Learning Assignments Potentially Impacted by Artificial Intelligence

<table>
<thead>
<tr>
<th>More secure</th>
<th>Less Secure</th>
</tr>
</thead>
<tbody>
<tr>
<td>These features protect against integrity challenges of Generative AI. They</td>
<td>Features which make assessments easier to complete using Generative AI. Can still be</td>
</tr>
<tr>
<td>don’t guarantee an assessment is valid or secure, but they help.</td>
<td>useful assessments but may be less secure.</td>
</tr>
<tr>
<td>Applied to a specific context</td>
<td>General: Broad or common topic</td>
</tr>
<tr>
<td>Evaluation, Synthesis, Analysis, Application</td>
<td>Foundational: Knowledge, Comprehension</td>
</tr>
<tr>
<td>Creating physical artefacts, Lab work, Vivas</td>
<td>Write, answer: Essays, coursework, multiple choice, writing code</td>
</tr>
<tr>
<td>Assessor + students in same physical location</td>
<td>Online: Remote, even if supervised</td>
</tr>
<tr>
<td>Questions not known to students beforehand</td>
<td>Unseen: Questions known to students prior to assessment</td>
</tr>
<tr>
<td>Direct observation of students (not necessarily a traditional 'exam')</td>
<td>Seen: Questions completed in their own time</td>
</tr>
<tr>
<td>Conducted 'live', usually in a shorter period</td>
<td>Unsupervised: Usually a longer, unsupervised period</td>
</tr>
<tr>
<td>Students only use materials provided</td>
<td>Supervised: Student completes assessment in their own time</td>
</tr>
<tr>
<td>Specific</td>
<td>Asynchronous: Little or no restriction of sources</td>
</tr>
<tr>
<td>Advanced</td>
<td></td>
</tr>
<tr>
<td>Practical</td>
<td></td>
</tr>
<tr>
<td>Unseen</td>
<td></td>
</tr>
<tr>
<td>Supervised</td>
<td></td>
</tr>
<tr>
<td>Real-time</td>
<td></td>
</tr>
<tr>
<td>Closed Book</td>
<td></td>
</tr>
<tr>
<td>Open Book</td>
<td></td>
</tr>
</tbody>
</table>

V3.0 Created by Prof Phil Newton and ChatGPT. Tilapia Silhouette by Natasha Sinegina CC BY 4.0 https://creazilla.com/nodes/405-tilapia-silhouette

Phil explains this tool starting at 4:55 time in [this video](https://www.youtube.com/watch?v=ABC123456789).
Entry Point #3: Redesigning Assessments

The box in green is where you're headed next if you continue to progress through the slides. Otherwise, you can click on the next topic you want to explore.

What are Assessments

Why Rethink Assessments

How to Redesign Assessments

Additional Readings

Practical Ideas for Updating Assessments
How to Redesign Assessments in the GenAI era
Guiding Questions for Revising Assessments

(adapted from Derek Bruff)

1. Why does this assessment make sense for this course?
2. What are specific learning outcomes for this assessment?
3. How might students use AI tools while working on this assessment?
4. How might AI undercut the goals of this assessment? How could you mitigate this?
5. How might AI enhance the assessment?
6. Is there anything students can use GenAI to do for your class?
   i. Invention/brainstorming (solving the “blank page” syndrome)
   ii. Outlining
   iii. Revision
   iv. Research
7. Do the learning objectives support you using GenAI output as the starting point?
8. Can you intentionally infuse A.I. into an activity or assessment?
9. Can you build in a greater focus on the process (rather than product)?
10. Can you make the assessment more meaningful for students?

For a walk-through of how to apply some of these questions to an actual assignment, click here.


## How to use GenAI to Redesign Assessments

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <em>Define Goal</em></td>
<td>Identify the specific outcomes you want the AI to achieve. This will ensure the prompt aligns with your goal (e.g., learning objectives).</td>
</tr>
<tr>
<td>2. <em>Determine Content Type and Format</em></td>
<td>Decide on the type of content (e.g., quiz questions, case study) and the format (e.g., multiple choice, long answer) that best fits your objectives and context.</td>
</tr>
<tr>
<td>3. <em>Craft Initial Prompt</em></td>
<td>Create a clear, concise prompt that effectively communicates the desired content and format to the AI model. Make sure to include necessary context, instructions, and parameters to guide the AI model towards the desired output.</td>
</tr>
<tr>
<td>4. <em>Initial Testing/Prototyping</em></td>
<td>Input the prompt into the AI model to generate an initial output.</td>
</tr>
<tr>
<td>5. <em>Reflect on the Output</em></td>
<td>Evaluate the AI-generated content to see if it aligns with your intended goal.</td>
</tr>
<tr>
<td>6. <em>Iterate</em></td>
<td>If the content doesn’t meet your expectations, refine the prompt by adjusting the context, instruction, or constraints. Repeat the process until you achieve the desired output.</td>
</tr>
</tbody>
</table>

https://ro.uow.edu.au/cgi/viewcontent.cgi?article=3299&context=jutlp
How to use GenAI to Redesign Assessments

<table>
<thead>
<tr>
<th>Component</th>
<th>Purpose</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verb</td>
<td>Indicates a specific action to be performed.</td>
<td>'Write...'</td>
</tr>
<tr>
<td>Focus</td>
<td>Provides the process, product, or outcome of the action to be performed (in relation to the 'verb')</td>
<td>'...a case study...'</td>
</tr>
<tr>
<td>Context</td>
<td>Explains the scope or parameters of the task.</td>
<td>'...for a first-year undergraduate marketing class.'</td>
</tr>
<tr>
<td>Focus and Condition</td>
<td>Provides the focus and condition for the generated output, defining the subject matter and the primary goal. This information can help to narrow down the scope of the task and clarify what the content should include.</td>
<td>'The case study should illustrate the challenges faced by a small business in developing a social media marketing strategy for attracting new clients.'</td>
</tr>
<tr>
<td>Alignment</td>
<td>Instructs the AI model to align content with your desired goal.</td>
<td>'The case study will be used to support students’ attainment of learning goals.'</td>
</tr>
<tr>
<td>Constraints and Limitations</td>
<td>Note any constraints or limitations that the AI model should adhere to.</td>
<td>'The case study should be approximately 2000-words long, include a brief description of the business, and describe the challenges faced by the business in relation to designing and delivering a social media strategy, and possible solutions, and include case questions for the students to discuss in class.'</td>
</tr>
</tbody>
</table>

https://ro.uow.edu.au/cgi/viewcontent.cgi?article=3299&context=jutlp
To learn how to use GenAI in your teaching role, see

**Prompting Higher Education Towards AI-Augmented Teaching and Learning Practice**

The article covers how to use GenAI to:

- Align Prompts with Learning Goals and Assessment Criteria
- Encourage Critical Thinking and Problem-Solving Skills
- Foster Student Engagement and Interaction
- Ensure Prompts are Adaptable Across Learning Contexts
- Design assessments with AI-generated content
- Create Learning Experiences for Diverse Student Needs
Entry Point #3: Redesigning Assessments

The box in green is where you're headed next if you continue to progress through the slides. Otherwise, you can click on the next topic you want to explore.

What are Assessments → Why Rethink Assessments → How to Redesign Assessments

Additional Readings

Practical Ideas for Updating Assessments
Practical Ideas to Update Assessments
#1: Update the Assessment Prompt (aka the assignment question)

- To make it less effective to offload work to GenAI
  - Move it up higher on Bloom’s Taxonomy
    - See next slide
  - Require connections to in-class conversations/discussions
    - To effectively use GenAI for such assessments, the student would have to provide those conversations/discussions to the tool; not impossible, but it takes effort and so offloading to the tool may not seem as attractive
  - Require use of course-assigned resources
    - Same as above
    - Also, GenAI tool may not have access to those resources unless the student provides them
      - And even if the tool does, GenAI can’t read! So, the output will be generic, off-topic, or factually incorrect

- To make it more meaningful and personally relevant to the students
  - This will enhance intrinsic motivations, which reduces the likelihood that students will want to cognitively offload their assessment to GenAI
# Bloom's Taxonomy Revisited

Use this table as a reference for evaluating and making changes to aligned course activities and assessments (or, where possible, learning outcomes) that account for generative Artificial Intelligence (AI) tool capabilities and distinctive human skills.

All course activities and assessments will benefit from **review** given the capabilities of AI tools; those at the **Remember** and **Analyze** levels may be more likely to need **amendment**.

<table>
<thead>
<tr>
<th>Bloom's Level</th>
<th>Recommendation</th>
<th>AI Capabilities</th>
<th>Distinctive Human Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CREATE</strong></td>
<td>Review</td>
<td>Suggest a range of alternatives, enumerate potential drawbacks and advantages, describe successful real-world cases</td>
<td>Formulate original solutions incorporating human judgement, collaborate spontaneously</td>
</tr>
<tr>
<td><strong>EVALUATE</strong></td>
<td>Review</td>
<td>Identify pros and cons of various courses of action, develop rubrics</td>
<td>Engage in metacognitive reflection, holistically appraise ethical consequences of alternative courses of action</td>
</tr>
<tr>
<td><strong>ANALYZE</strong></td>
<td>Amend</td>
<td>Compare and contrast data, infer trends and themes, compute, predict</td>
<td>Critically think and reason within the cognitive and affective domains, interpret and relate to authentic problems, decisions, &amp; choices</td>
</tr>
<tr>
<td><strong>APPLY</strong></td>
<td>Review</td>
<td>Make use of a process, model, or method to illustrate how to solve a quantitative inquiry</td>
<td>Operate, implement, conduct, execute, experiment, and test in the real world; apply creativity and imagination to idea &amp; solution development</td>
</tr>
<tr>
<td><strong>UNDERSTAND</strong></td>
<td>Review</td>
<td>Describe a concept in different words, recognize a related example, translate</td>
<td>Contextualize answers within emotional, moral, or ethical considerations</td>
</tr>
<tr>
<td><strong>REMEMBER</strong></td>
<td>Amend</td>
<td>Recall factual information, list possible answers, define a term, construct a basic chronology</td>
<td>Recall information in situations where technology is not readily accessible</td>
</tr>
</tbody>
</table>

For thorough explanations of this graphic and how you can use it to update your assessment prompts, [click here](#)
#2: Consider Changing the Artifacts to

- enhance students’ intrinsic motivations to learn
  - Make assessments more meaningful/authentic
  - Give them some choice and control within the learning outcomes
    - e.g., if “learning to write an essay” isn’t the learning objective, perhaps the nature of artefact could be chosen by the student
    - change written reflections or short answers to mindmaps or oral recordings
  - Consider scaffolding - instead of 3 separate assessments, design one major one with formative assessments that take the student step-by-step through the process

- increase accountability for the learning
  - Online annotations with Perusall or Hypothes.is.
  - Peer Reviews
  - Group work in class (active learning)
  - In-class discussions of artefacts
  - Focus on process, not products
    - Have students write in google docs and submit the url for you to check their version history
    - require students to submit video explaining their artefact (using Microsoft Flip or Kaltura in Canvas)

- secure the assessments (see Entry Point #4)
<table>
<thead>
<tr>
<th>Bloom’s Level</th>
<th>Example</th>
<th>Original Assessment Artefacts</th>
<th>Updated Artefacts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Analyze</strong></td>
<td>Compare and contrast different forms of government and the significant historical figures represented with each regime.</td>
<td>Literature review, concept map, debate, case study, research paper, discussion forums</td>
<td>Formative = student choice of artefact Summative = oral presentation (whether to entire class or just small groups)</td>
</tr>
<tr>
<td><strong>Apply</strong></td>
<td>Write an argument supporting a political party platform and integrate relevant evidence from the texts.</td>
<td>Essay, presentation, scenario response, short answer response</td>
<td>Formative = give students choice over artefact (e.g., recorded video, PPT, essay) Summative = essay using Draftback (tracks revisions) with possible oral follow-up</td>
</tr>
<tr>
<td><strong>Understand</strong></td>
<td>Explain contrasting political theories from different vantage points.</td>
<td>Discussions, reading summaries, identifying political theories, concept map, true or false quiz questions, group discussion</td>
<td>Formative = in-class discussion, each group member takes on a different political role from which they explain a political theory Summative = secure, in-class quiz</td>
</tr>
<tr>
<td><strong>Remember</strong></td>
<td>Define relevant vocabulary for international affairs discourse.</td>
<td>Multiple choice, fill in blank, recite, word/definition match, polling questions</td>
<td>Formative = fun, in-class, flash card activity Summative = Secure, in-class quiz</td>
</tr>
</tbody>
</table>
#3: Tweak Assessments to Allow GenAI Use

1. Writing Support
2. Research assistance
3. Language translation
4. Writing improvement
5. Writing assistance
   a. Require students to use Lex, a GPT powered AI that enables students to show what was written by AI vs what they wrote.

See [Wakefield’s A.I. Tool Guidelines](https://unf.pressbooks.pub/chatgptinhighereducation/chapter/chapter-1/) for more ideas of ways students may be able to use AI Tools for academic work.
Example: Using GenAI in the Research Process

Strategies for Using ChatGPT/Al in the Research Process

Writing up
- Improve writing quality
- Reformat citations and references
- Translate writing

Research design
- Generate ideas for research questions or projects
- Suggest data sources

Data analysis
- Code data
- Suggest themes or topics for analysis

Data collection
- Search archives and datasets
- Translate sources into other languages

Source: UNESCO
### Example: Other Possible Uses of GenAI

<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
<th>Example of implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possibility engine</td>
<td>AI generates alternative ways of expressing an idea</td>
<td>Students write queries in ChatGPT and use the Regenerate response function to examine alternative responses.</td>
</tr>
<tr>
<td>Socratic opponent</td>
<td>AI acts as an opponent to develop and argument</td>
<td>Students enter prompts into ChatGPT following the structure of a conversation or debate. Teachers can ask students to use ChatGPT to prepare for discussions.</td>
</tr>
<tr>
<td>Collaboration coach</td>
<td>AI helps groups to research and solve problems together</td>
<td>Working in groups, students use ChatGPT to find out information to complete tasks and assignments.</td>
</tr>
<tr>
<td>Guide on the side</td>
<td>AI acts as a guide to navigate physical and conceptual spaces</td>
<td>Teachers use ChatGPT to generate content for classes/courses (e.g., discussion questions) and advice on how to support students in learning specific concepts.</td>
</tr>
<tr>
<td>Personal tutor</td>
<td>AI tutors each student and gives immediate feedback on progress</td>
<td>ChatGPT provides personalized feedback to students based on information provided by students or teachers (e.g., test scores).</td>
</tr>
<tr>
<td>Co-designer</td>
<td>AI assists throughout the design process</td>
<td>Teachers ask ChatGPT for ideas about designing or updating a curriculum (e.g., rubrics for assessment) and/or focus on specific goals (e.g., how to make the curriculum more accessible).</td>
</tr>
<tr>
<td>Exploratorium</td>
<td>AI provides tools to play with, explore and interpret data</td>
<td>Teachers provide basic information to students who write different queries in ChatGPT to find out more. ChatGPT can be used to support language learning.</td>
</tr>
<tr>
<td>Study buddy</td>
<td>AI helps the student reflect on learning material</td>
<td>Students explain their current level of understanding to ChatGPT and ask for ways to help them study the material. ChatGPT could also be used to help students prepare for other tasks (e.g., job interviews).</td>
</tr>
<tr>
<td>Motivator</td>
<td>AI offers games and challenges to extend learning</td>
<td>Teachers or students ask ChatGPT for ideas about how to extend students learning after providing a summary of the current level of knowledge (e.g., quizzes, exercises).</td>
</tr>
<tr>
<td>Dynamic assessor</td>
<td>AI provides educators with a profile of each student’s current knowledge</td>
<td>Students interact with ChatGPT in a tutorial-type dialogue and then ask ChatGPT to produce a summary of their current state of knowledge to share with their teacher/for assessment.</td>
</tr>
</tbody>
</table>

Source: UNESCO
Example: Incorporate GenAI into the Assessment

![PAIR framework diagram]

**Figure 1: The PAIR framework for developing generative AI skills.**

- **Problem:** Formulate the problem. Identify the core problem, its components, and constraints.
- **AI:** Select suitable AI tools. Explore and identify the most suitable generative AI tools for your problem.
- **Interaction:** Interact with the AI tools. Experiment with different ways to interact, critically evaluate outputs and integrate them to tackle the problem.
- **Reflection:** Reflect on the experience. Evaluate how the generative AI tool helped or hindered problem solving; reflect on your feelings when collaborating with generative AI.

Click on the image to read the article that gives an assignment example using the PAIR framework, and for best practices in using this framework for incorporating GenAI into your assessment.

See Watkins' Update Your Course Syllabus for ChatGPT - Get Creative with Your Assignments for more ideas of how to incorporate GenAI into your class.
# Updated Assessments with GenAI Use

<table>
<thead>
<tr>
<th>Bloom’s Level</th>
<th>Example</th>
<th>Updated Assessment with GenAI Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create</td>
<td>Develop and defend a policy brief informed by existing political phenomena.</td>
<td></td>
</tr>
<tr>
<td>Evaluate</td>
<td>Assess an existing political institution and recommend evidence-based modifications to improve democratic governance.</td>
<td></td>
</tr>
<tr>
<td>Analyze</td>
<td>Compare and contrast different forms of government and the significant historical figures represented with each regime.</td>
<td>Prompt a GenAI tool to take on a particular political party platform. You assume one that is in opposition. (E.g., pro-life versus women’s choice). Tell the tool that you are going to debate - you go first. Go at least 5 rounds with the tool. Review the debate, critique the tool's arguments, and write up your reflection on the experience. Turn in the chat history, along with your write-up. (Bloom’s Level = Apply, Analyze &amp; Evaluate)</td>
</tr>
<tr>
<td>Apply</td>
<td>Write an argument supporting a political party platform and integrate relevant evidence from the texts.</td>
<td></td>
</tr>
<tr>
<td>Understand</td>
<td>Explain contrasting political theories from different vantage points.</td>
<td>Use GenAI tool to generate the relevant vocabulary. Critique the list according to what you’ve learned in class; make corrections as needed. Come to class prepared to use this vocabulary when you have a small group discussion about a current international issue. Submit your list, your critique, and notes and reflection of the group’s discussion (Bloom’s Level = Apply and Evaluate)</td>
</tr>
<tr>
<td>Remember</td>
<td>Define relevant vocabulary for international affairs discourse.</td>
<td></td>
</tr>
</tbody>
</table>
#4 Reconsider the Grading Structure

- For any assessment that is not secure, change it from a summative to formative assessment
  - Focus is on giving feedback to facilitate and improve learning
  - Remove or reduce grades for those assessments
- Develop Assessment Rubrics
  - Rubrics communicate expectations for mastery the intended learning outcomes
  - Share with students ahead of assessment completion - help students focus on the learning
  - Used to evaluate the level of mastery after the assessment is completed
    - Holistic Rubrics for formative assessments
    - Analytic Rubrics for summative assessments
- Raise the bar on levels of mastery
  - If GenAI can generate a C or B level paper, than change the rubric to require more from students than what a machine can do

https://unf.pressbooks.pub/chatgptinhighereducation/chapter/enhancing-teaching-and-learning/#rubrics
Need Help Creating Rubrics?

Use this handy Guide from the Commons

Developing Rubrics to Assess and Improve Student Learning

A rubric is a scoring tool that lays out the specific expectations for an assignment. Rubrics divide an assignment into its component parts and provide a detailed description of what constitutes acceptable or unacceptable levels of performance for each of those parts.

— Stevens and Levi (2013)

Developing a Rubric

1. Identify the purpose of using a rubric for the assignment
   Instructors should review the learning outcomes associated with the assignment, and reflect on the goals that need to be accomplished by the use of a rubric. This helps determine the type of rubric to use.

2. Gather samples of rubrics to adapt
   Most likely, instructors will find rubrics developed by others for similar learning outcomes. Good examples include the AAC&U’s VALUE rubrics for 15 essential learning outcomes.

3. Define major elements of your assignments
   Identify important elements for your assignment that defines the quality of a complete student work. Order them from most important to the least and use the top ones as the dimensions for your rubric. Assign weights to the dimensions accordingly if you like to show different priorities of the elements.

Ask ChatGPT-4 for help

How to Create a Rubric with ChatGPT

Written by Emily Horn | June 8, 2023

Create a Rubric

IN LESS THAN ONE MINUTE!
Ethical Caveats

1. Keep diversity and disabilities in mind when re-designing assessments
2. Paid GenAI tools are better than the free ones - if you require GenAI Tools, make sure the requirement is equitable
3. GenAI tools are fraught with their own ethical concerns - prepare alternative assessments for those students who don’t want to use them
4. At least one summative assessment (end of quarter) should be secure to ensure that your assessment of student learning is valid (see next section on Assessment Security)
Entry Point #3: Redesigning Assessments

The box in green is where you’re headed next if you continue to progress through the slides. Otherwise, you can click on the next topic you want to explore.

What are Assessments

Why Rethink Assessments

How to Redesign Assessments

Additional Readings

Practical Ideas for Updating Assessments

Next Step
Additional Readings

Scholarly Articles/Chapters
- Scaling up assessment for learning: progress and prospects
- Cognitive Offloading and Assessment
- Hello GPT! Goodbye home examination? An exploratory study of AI chatbots impact on university teachers’ assessment practices

Opinions on the Impact of GenAI on Assessments
- Cynthia Alby’s ChatGPT: Understanding the new landscape and short-term solutions
- Assessments and GenAI
- The Role of Quality Assessment Design in Strengthening Academic Integrity
- We Must Still Make Students Write

Practical Ideas
- Assigning AI: Seven Ways of Using AI in Class
- University of Texas Tips for Writing Assignment Prompts
- University of Arizona Writing an Assignment Prompt & Rubric
- Responding to Generative AI for assessments (from University of Sydney)
- Scaffolding as a RoadMap: Guiding and Supporting Student Learning
Will GenAI use undermine the course learning outcomes?

YES

Can the learning outcomes be revised?

YES

Revise the learning outcomes

NO

Can the assessments be redesigned?

YES

Redesign the assessment(s)

NO

Secure the Assessment(s)

YES

Will GenAI use undermine assessment validity?

NO

Craft Your GenAI & AI Policy

Next entry point
Entry Point #4
Securing Assessments
Entry Point #4: Securing Assessments

Choose where to start by clicking on the box you want to explore. You can progress through the slides in order as well. The green topic box is the next topic.

Why do I need to secure assessments

Why not just create an integrity culture

What assessments should be secure

Additional Readings

How can assessments be secured
Why do I have to Secure Assessments?

- You don’t have to secure all assessments - just those that must be valid measures of the students’ mastery of learning outcomes (e.g., summative assessments)
- Where you can, revise learning outcomes, redesign assessments, and create cultures of integrity, but assessment security begins where academic integrity ends (Phillip Dawson)
- Where you must, secure assessments so that you know they’re being completed in the way you intended (reliability) and they are measuring what you designed them to measure (validity)
Entry Point #4: Securing Assessments

The box in green is where you're headed next if you continue to progress through the slides. Otherwise, you can click on the next topic you want to explore.

Why not just create an integrity culture

What assessments should be secure

Additional Readings

How can assessments be secured

Why do I need to secure assessments
Why not just create a culture of integrity (and trust students)?

- You should work to create a classroom culture of integrity (see next section on Crafting the GenAI & AI Policy)
  - Doing so could impact student choices & is a good thing!
- But for those assessments that really matter - that’s not sufficient
- Trusting students not to cheat isn’t fair to the students who don’t cheat no matter what
- For all other human behaviors, we understand that people need help sticking to their goals or keeping their promises
  - E.g.: I would like to trust myself to avoid snacking, but to really prevent myself from doing so, I don’t put the snacks in my house!
- Sometimes students need help to refrain from engaging in behaviors that won’t serve them well in the long run
Entry Point #4: Securing Assessments

Why not just create an integrity culture?

What assessments should be secure?

Additional Readings

How can assessments be secured?

Why do I need to secure assessments?
Assessments that should be Secured are those that:

- evaluate, rather than facilitate or improve learning
- determine if a student is ready to progress into the next course in the sequence
- predict a student’s ability to succeed in a particular genre/discipline (e.g., math placement tests)
- require a restriction of cognitive offloading (because the lower level knowledge is being assessed)
- have to be reused term after term with few changes
- result in degrees being granted (e.g., theses, culminating exams, capstone projects, dissertations)
Entry Point #4: Securing Assessments

Why do I need to secure assessments

Why not just create an integrity culture

What assessments should be secure

Additional Readings

How can assessments be secured
How to Secure Assessments

1. Use the [Triton Testing Center](#) (for make-up and accommodated tests)
2. Oral assessments
3. Interactive oral assessments
4. Two-stage exams
5. Individualized Assessments (e.g., [PrairieLearn](#))
6. In-Class Proctoring
7. Online Tools (e.g., [Lockdown Browser; Remote Proctoring](#))
Entry Point #4: Securing Assessments

The box in green is where you're headed next if you continue to progress through the slides. Otherwise, you can click on the next topic you want to explore.

Why do I need to secure assessments
Why not just create an integrity culture
What assessments should be secure
How can assessments be secured
Additional Readings
Next Step
Additional Readings

**Generative artificial intelligence and assessment security**

- A really thorough site exploring the potential risks to academic integrity & security, as well as the potential tips & mitigation strategies for all types of assessments:
  - Quizzes
  - Exams
  - Written tasks
  - Presentations and performances
  - Coding tasks
  - Labs/Practicals
  - Graphical artefact/resource

**Thoughts About Remote Proctoring Using Third Party Services**

- Remote Proctoring: Understanding the Debate
- The Good and Bad of Online Proctoring
Will GenAI use undermine the course learning outcomes?

Can the learning outcomes be revised?

Can the assessments be redesigned?

Will GenAI use undermine assessment validity?

Revise the learning outcomes

Redesign the assessment(s)

Final entry point

Allow GenAI Use

Secure the Assessment(s)

Craft Your GenAI & AI Policy
Entry Point #5
Crafting Your GenAI & AI Policy
Entry Point #5: Crafting your GenAI & AI Policy

Choose where to start by clicking on the box you want to explore. You can progress through the slides in order as well. The green topic box is the next topic.

Why a Written Policy is Needed

Choose a Policy Path

Practical Ideas for Crafting your Policy

Additional Readings
Why a Written Policy is Needed
# Students Will Cognitively Offload to Machines

<table>
<thead>
<tr>
<th>Reasons For Cognitive Offloading (Aka Cheating)</th>
<th>What this Sounds Like</th>
<th>How GenAI “Helps”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Self-Efficacy</td>
<td>“There’s no way I can do this”.</td>
<td>Does the task for them &amp; may give them the false sense that they know what they’re doing</td>
</tr>
<tr>
<td>Ethically unaware</td>
<td>“I didn’t know it was considered cheating!”</td>
<td>GenAI, like the “Help me Write” button in Google Docs, seems harmless, like using spell or grammar check.</td>
</tr>
<tr>
<td>Peer Effects</td>
<td>“My friends are using it, so that must mean it’s okay!”</td>
<td>GenAI feels like just another friend that students can turn to when they’re struggling.</td>
</tr>
<tr>
<td>Motivation</td>
<td>“I’ve got to get a good grade in this course!”</td>
<td>The GenAI focus on generating output reinforces the student’s own extrinsic orientation to producing products rather than learning</td>
</tr>
<tr>
<td>Procrastination</td>
<td>“I don’t have time to finish this assignment!”</td>
<td>GenAI can quickly generate a product that the student can submit as their own</td>
</tr>
<tr>
<td>Instructor Effects</td>
<td>“This is a stupid assignment that I don’t care about anyway”</td>
<td>If the students don’t find value or meaning in the assessment, they’ll offload it to GenAI</td>
</tr>
</tbody>
</table>
Why You Need a Written Policy

- Students will use the opportunity to cognitively offload if it hasn’t been made clear that it isn’t allow
- Students are already using the tools, and they have been consistent in asking for guidance from faculty of if, when, and how they can use it
- We are in unknown territory here - hard for people to decide if GenAI is ethical/appropriate to use or not
- As GenAI gets further integrated into existing systems (like spell check), it will become even harder to see the line between ethical and unethical
- Faculty have different opinions and rules - students should not have to guess what is allowed in one class vs. another, or on one assessment or another
- You need to communicate your expectations because they are directly tied to course learning outcomes and assessments
- Senate Academic Integrity Policy requires rules to be in writing
There is disagreement among faculty about if and how GenAI should be used.
Questions to Consider in Deciding Your Policy

1) Given the course learning outcomes and purpose of the assessments (formative vs. summative), what constitutes “appropriate” and “ethical” use of GenAI tools in your classroom?

2) What is “work” on this assessment?
   a) (students say “I never would ask it to do my work for me)

3) What does “do your own work in our own words” mean in this course and on these assessments?

4) Is there a certain percentage of AI use that’s permitted?
   a) Why?

5) What, if any, is the difference between AI-assistance (spell and grammar checks; research aids; reference formatting) and AI-generated language (content creation) within the framework of your course?
Entry Point #5: Crafting your GenAI & AI Policy

Why a Written Policy is Needed

Choose a Policy Path

Practical Ideas for Crafting your Policy

Additional Readings

The box in green is where you're headed next if you continue to progress through the slides. Otherwise, you can click on the next topic you want to explore.

UC San Diego
ACADEMIC INTEGRITY OFFICE
Choose a Policy Path
Click on the diamond to take you down that path

You determined that the course learning outcomes & assessments would be undermined by GenAI use

You determined that GenAI will not undermine learning outcomes if it is used in certain ways, for certain tasks, and/or on particular assessments

You determined that GenAI use will not undermine any of the course learning outcomes & assessments
Crafting Your Banned Policy
Crafting Your Banned Policy

● Be clear on the WHY
  ○ E.g., Generative AI output is NOT your work, even if your prompts led to the output. If you submit this output as if it is yours, that’s misrepresenting your knowledge and abilities. It is dishonest.
  ○ E.g., the knowledge we’re teaching in this course is fundamental - you need to know it to be able to accomplish more complex tasks later
  ○ E.g., GenAI tools hallucinate and aren’t trained to be truthful. So, in order to use GenAI output later, you need this fundamental knowledge to know when the GenAI output is incorrect

● Be specific on what tools are not allowed or for what purposes
  ○ E.g., “you cannot use any person or machine to create content for you that you then submit as your own. So, on this assignment, for example…..”
  ○ Students are already using some tools (e.g., Grammarly to “help” with their writing), so make sure you address the most commonly used ones
  ○ This is why talking to your students before finalizing your policy can be helpful

● State that you have the right to follow-up with an oral conversation to assess their learning
CAVEAT: Banning unlikely to work

Students Likely to Use it Anyway

![Bar chart showing the likelihood of using AI among non-users and current users of AI.]

Its Use is Difficult to Detect

- Detectors are often wrong
- Detectors are easily fooled
- Detectors may be more likely to say something written by a non-native English writer is AI-generated
- Faculty don’t seem to be any better at detecting

Banning without enforcement creates an unfair learning environment. If you won’t be enforcing the ban, reconsider your policy or secure your assessments.
Example Banned Statements

Example #1 (from Macalester College)

Using AI can impede your learning. The assignments in this class challenge you to develop creativity, critical-thinking, and problem-solving skills that AI does not have. Using AI technology could limit your capacity to do this type of work, and as the instructor, I urge you not to miss out on the educational opportunities that this course will provide. As is the case for all courses at Macalester College, work submitted by you for this class should reflect both your own ideas and your own language and you should properly cite any resources you have consulted. If you have any questions about citation or about what constitutes academic honesty in this course or at Macalester College in general, please feel free to raise these questions in class and/or contact me to discuss your concerns.

Example #2 (From unknown institution)

All cases of academic misconduct will be referred to the Office of Student Conduct. Academic Misconduct includes (but is not necessarily limited to) using ideas, words, images, or content in any other media that you did not create and presenting that content as if you were the creator. Copying content that other people created—either directly or in a modified form—without properly acknowledging the creator qualifies as academic misconduct, as does utilizing unauthorized digital tools such as artificial intelligence to create content. An assignment that is found to have been plagiarized or to have used unauthorized tools will automatically receive a zero and you will not be given an opportunity to repeat the assignment for a passing grade. Depending on the severity of the case, academic misconduct may result in a failing grade in the course.

Sourced from https://docs.google.com/document/d/1RMVwzjc1o0Mi8Blw.-JUTcXv02b2WRH86vw7mi16W3U/edit
Example Banned Statements

Example #3 (from Texas Woman’s University, Ann Davis)

All assignments in this course are individual assignments. In this class, you will often be discussing course concepts with your classmates and with me, but when you sit down to complete a quiz, write a discussion post, or work on a project, I expect you to do the actual work independently. This is the only way that I will be able to tell what you have learned.

You may not use non-TWU “tutoring services” such as Chegg or Course Hero for this course. Paying someone else to do your classwork is the opposite of learning.

You may not use artificial intelligence tools to complete your assignments in this course.

Your major projects in this course are open-book and open-note. However, plagiarism from any source is prohibited, both by university policy and by federal law. Any written assignments, including quizzes, projects, and discussion posts, must be your own, original work. You cannot directly copy word-for-word from any source, including a textbook, even if you provide a citation. Copying someone else’s words denies credit to the original author, and it also robs you of the opportunity to deepen your understanding by putting things in your own words. We will be using the Turnitin tool on many assignments in this course as a way to teach you to identify and avoid plagiarism. You will be able to see your similarity report as soon as you submit an assignment. If you notice that you have accidentally committed plagiarism, you should rewrite your assignment and resubmit it. If I notice that you have accidentally plagiarized, I will contact you and ask you to rewrite and resubmit, and I will not grade your assignment until I receive your new submission.

Sourced from https://docs.google.com/document/d/1RMVwzjc1o0Mi8Blw_-JUTcXv02b2WRH86vw7mi16W3U/edit
This course includes the independent development and practice of specific knowledge and skills, such as [fill this in with your learning outcomes]. Therefore, the use of Generative artificial intelligence (GenAI) trained using large language models (LLM) or other methods to produce text, images, music, or code, like Chat GPT, DALL-E, or GitHub CoPilot, is not permitted in this class. Unauthorized use in this course, such as running course materials through GenAI or using GenAI to complete a course assessment is considered a violation of the University’s Academic Integrity Policy. Work produced with the assistance of AI tools does not represent your original work and is therefore in violation of the fundamental values of academic integrity including honesty, trust, respect, fairness, responsibility and courage (ICAI, n.d.).

You should be prepared to show the learning process behind the work you submit. To demonstrate your learning, you should keep your rough notes, including research notes, brainstorming, and drafting notes. You may be asked to submit these notes along with earlier drafts of their work, either through saved drafts or saved versions of a document. If the use of GenAI is suspected where not permitted, you may be asked to meet with me to provide explanations and to support the submitted material as being your original work. Through this process, if you have not sufficiently supported your work, I may need to report the matter to the Academic Integrity Office. In addition, you should be aware that the legal/copyright status of generative AI inputs and outputs is unclear.

You are encouraged to reach out to me or the TAs for support, or reach out to any of the following UC San Diego academic support centers for academic assistance:

- The Commons' Academic Achievement Hub for Learning Strategies, Content Tutoring or Supplemental Instruction
- The Commons' Writing Hub for help with writing or other types of communication (e.g., presentations)
- The Library for research-based assignments
- The Academic Integrity Office for questions about ethical use of GenAI
Detecting Integrity Violations when GenAI Use Not Permitted

Adapted from Cotton, Cotton & Shipway (2023), there are a few signs that an academic assessment has been produced by a GenAI chatbot:

- **Language patterns or irregularities**: chatbots often have limited language abilities and may produce repetitive phrases or words, with odd or inconsistent use of language.
- **Inaccurate or Unusual sources and citations**: work written by a chatbot may include fake or irrelevant citations, and usually not those associated with the course.
- **Lack of originality**: depending on the topic, the output produced by a chatbot may not be that original; using Turnitin can still potentially help check for copying/plagiarizing.
- **Factual errors**: chatbots often produce text that is factually inaccurate or inconsistent.
- **Blandness**: chatbot output is usually quite generic and not connected to the particular context of your course.
- **Off-topic**: the content is slightly or fully off-topic, not addressing the prompt or even related to what was taught in the class.

If any of these signs are present, talk with the student about their assessment before reporting to the AI Office:

1. What was your process for completing this assignment?
2. Do you have your notes, version history?
3. Why did you choose X instead of Y?
4. Tell me more about this source - why did you use it instead of one of the ones from class?
5. Did you use a GenAI tool to produce any of this content?
   a. If yes, please share the output from the tool so we can see your process & the changes you made.
Crafting Your Conditional Policy
Crafting Your Conditional Use Policy

- Determine which learning outcomes would be undermined by GenAI use and which ones wouldn’t be
- Discuss when GenAI use would cross a line from acceptable to cheating
  - E.g., using it to generate topic ideas for a paper is fine, but using it to generate content is not fine
- Identify when GenAI use would reduce the labor of a task without undermining learning or enabling students to learn more with the same labor
- List out if there are specific tools allowed and for what purposes (e.g., ResearchRabbit for finding scholarly research)
- Require proof of how it was used
  - E.g., students have to submit their Chat History with their assignment and a meta-reflection on how they used the tool and how it helped, or didn’t help, their learning
- Tell students that you reserve the right to follow-up with an oral conversation to assess their learning
- Include this statement: “For more guidance on using GenAI, check out this Guide from our Library”

Thanks to Brandauer & Forbes for some of these ideas
Requiring Transparency about GenAI Use

- Require students to explicitly share whether or not they used ChatGPT or another AI technology in specific assignment/activity:
  
  Example from University College London:

  You must acknowledge its use – name the tool and how it was used using the following style.

  ○ No content generated by AI technologies has been presented as my own work
  ○ I acknowledge the use of <insert AI system(s) and link> to generate materials for background research and self-study in the drafting of this assessment.
  ○ I acknowledge the use of <insert AI system(s) and link> to generate materials that were included within my final assessment in modified form.

- Require students to explicitly share prompts, outputs, and modifications:
  
  Example from University College London:

  You must describe how the information or material was generated (including the prompts you used), what the output was and how the output was changed by you. You should use the following style of wording, depending on the nature of use:

  ○ The following prompts were input into <AI system>: <List prompt(s)>
  ○ The output obtained was: <Paste the output generated by the AI system>
  ○ The output was changed by me in the following ways: <explain the actions taken>

Above is copied from
https://docs.google.com/document/d/1luwax_ps5tqRGBL4XWyr_Y_ab8h7Y7k6bsp4v1-pIRc/edit
Example Conditional Use Statements

ARTIFICIAL INTELLIGENCE (AI) USE POLICY (Macalester College)

Example #1

AI can both interfere with and enhance our capacity to learn. We must be mindful of when it might hinder us and when it might provide us with new understanding and/or assistance. In specific situations and contexts within this course you will be asked to use AI tools to explore how they can be used, what their limits are, and how to use them ethically. Please remember that any idea or language that is not your own needs to be correctly cited in work that you submit in this course and at Macalester College in general. This policy covers all types of AI: text, code, images, video, audio, and translation.

[You might want to include more specific guidelines about AI-generated text/code and-vs AI-assistance–are they both acceptable? Under what circumstances?]

Example #2

In this course, you may use AI tools (such as Bard or ChatGPT) to help you generate ideas and to brainstorm. However, you should note that the material generated by these tools may be inaccurate, incomplete, or otherwise problematic. Beware that overuse of AI may stifle your own independent thinking and creativity, and use any tools (for generating text, code, video, audio, images, or translation) wisely and carefully.

You may not submit any work generated by an AI program as your own. If you include material—including both ideas and language—generated by an AI program, it should be cited like any other reference material, both in this course and at Macalester College in general. If you have any questions, please feel free to contact me.
Example Conditional Use Statements

Example #3 (From George Washington University, Alexa Alice Joubin)

Using an AI-content generator such as ChatGPT to complete assignment without proper attribution violates academic integrity. By submitting assignments in this class, you pledge to affirm that they are your own work and you attribute use of any tools and sources.

Learning to use AI responsibly and ethically is an important skill in today’s society. Be aware of the limits of conversational, generative AI tools such as ChatGPT.
- Quality of your prompts: The quality of its output directly correlates to the quality of your input. Master "prompt engineering" by refining your prompts in order to get good outcomes.
- Fact-check all of the AI outputs. Assume it is wrong unless you cross-check the claims with reliable sources. The currently AI models will confidently reassert factual errors. You will be responsible for any errors or omissions.
- Full disclosure: Like any other tool, the use of AI should be acknowledged. At the end of your assignment, write a short paragraph to explain which AI tool and how you used it, if applicable. Include the prompts you used to get the results. Failure to do so is in violation of academic integrity policies. If you merely use the instructional AI embedded within Packback, no disclosure is needed. That is a pre-authorized tool.

Here are approved uses of AI in this course. You can take advantage of a generative AI to:
- Fine tune your research questions by using this tool https://labs.packback.co/question/ Enter a draft research question. The tool can help you find related, open-ended questions
- Brainstorm and fine tune your ideas; use AI to draft an outline to clarify your thoughts
- Check grammar, rigor, and style; help you find an expression

Example #4 (from Chandler Gilbert Community College, Miguel Fernandez)

1) Using a product or technology (ChatGPT, Dall-E, etc.) in the course to create or aggregate synthetic content for the course such as any course writing, brainstorming, generating a draft, a works cited source bank, answering discussion groups, substitute or impersonate you in zoom, classroom, breakout rooms, collaboration, group work, or other attendance activities, is considered academic misconduct similar to plagiarism or violations of the honor code.

2) Using a product or technology as identified above to help you edit your work (improve your quality as defined by course instruction, course definitions, standards & expectations, and rubrics) is not a violation of the honor code statement, as long as you cite the tool or identify it as a partner or augmentation in use for a course related activity before submitting your work.

Sourced from https://docs.google.com/document/d/1RMVwzjc1o0Mi8Blw_-JUTcXv02b2WRH86vw7mi16W3U/edit
Example Conditional Use Statements

Example #5 (From Bentley University, Chris Beneke)

Writing is integral to thinking. It is also hard. Natural language processing (NLP) applications like ChatGPT or Sudowrite are useful tools for helping us improve our writing and stimulate our thinking. However, they should never serve as a substitute for either. And, in this course, they cannot.

Think of the help you get from NLP apps as a much less sophisticated version of the assistance you can receive (for free!) from a Bentley Writing Center tutor. That person might legitimately ask you a question to jump-start your imagination, steer you away from the passive voice, or identify a poorly organized paragraph, but should never do the writing for you. A major difference here, of course, is that an NLP app is not a person. It's a machine which is adept at recognizing patterns and reflecting those patterns back at us. It cannot think for itself. And it cannot think for you.

With that analogy in mind, you will need to adhere to the following guidelines in our class.

Appropriate use of AI when writing essays or discussion board entries
• You are free to use spell check, grammar check, and synonym identification tools (e.g., Grammarly, and MS Word)
• You are free to use app recommendations when it comes to rephrasing sentences or reorganizing paragraphs you have drafted yourself
• You are free to use app recommendations when it comes to tweaking outlines you have drafted yourself

Inappropriate use of AI when writing essays or discussion board entries
• You may not use entire sentences or paragraphs suggested by an app without providing quotation marks and a citation, just as you would to any other source. Citations should take this form: OpenAI, chatGPT. Response to prompt: “Explain what is meant by the term “Triple Bottom Line”” (February 15, 2023, https://chat.openai.com/).
• You may not have an app write a draft (either rough or final) of an assignment for you

Evidence of inappropriate AI use will be grounds for submission of an Academic Integrity report. Sanctions will range from a zero for the assignment to an F for the course.

I’m assuming we won’t have a problem in this regard but want to make sure that the expectations are clear so that we can spend the semester learning things together—and not worrying about the origins of your work.

Be aware that other classes may have different policies and that some may forbid AI use altogether

Sourced from https://docs.google.com/document/d/1RMVwzjc1o0Mi8Bltw-JUTcXv02b2WRH86vw7mi16W3U/edit
Example Conditional Use Statements

Example #6 (from Ohio State University, Inara Scott)

I expect you to generate your own work in this class. When you submit any kind of work (including projects, exams, quizzes, or discussions), you are asserting that you have generated and written the text unless you indicate otherwise by the use of quotation marks and proper attribution for the source. Submitting content that has been generated by someone other than you, or was created or assisted by a computer application or tool, including artificial intelligence (AI) tools such as ChatGPT is cheating and constitutes a violation of the Student Conduct Code. You may use simple word processing tools to update spelling and grammar in your assignments, but you may not use AI tools to draft your work, even if you edit, revise, or paraphrase it. There may be opportunities for you to use AI tools in this class. Where they exist, I will clearly specify when and in what capacity it is permissible for you to use these tools.

Example of guidance on individual assignments:

I want to address the new AI-tools that you may be hearing about, such as ChatGPT, and their possible role in this project. I want you to be aware that ChatGPT is based on a large language model—it is basically crowdsourcing information and providing likely answers based on the vast amount of text in its database. While it can provide some helpful information, and may spur your thinking in some areas, it is not a reliable source and cannot provide citations or references to reliable data or evidence. (If you ask it for a citation, be aware that it makes things up and the information it's giving you is likely garbage!)

So, can I use ChatGPT or other AI tools to help write this paper?

**Things you can do:** ask ChatGPT questions! I personally enjoy chatting with it about topics I'm interested in. For example, "What are some current issues related to sustainability in the airline industry?" When you read what it says, keep in mind that it's probably at least 60-70% correct, but perhaps not more than that. :-) Given that you're considering whatever it told you with a big grain of salt, you'll then need to do some research to find peer reviewed and reliable evidence that might corroborate (or disagree with!) what the AI tool told you. Use those articles to find other articles that consider the same question (review the citation list for other articles to read). Either before or after you ask ChatGPT a question, try a google search with the same sort of query and see what it turns up; also, try a search on the OSU library system. Review, compare, and investigate. Repeat this cycle, keeping in mind that what you're getting from AI is crowdsourced information, not the reliable product of research and assessment.

**Things you cannot do:** Do not use ChatGPT to draft your paper. Do not use ChatGPT to give you citations. I am saying this both for purposes of coming up with reliable evidence and also from an academic integrity (i.e., cheating) standpoint. If you didn't write it, don't put your name on it and claim that you wrote it. Don't modify a few words here and there and claim you wrote it either. Close the window before you start drafting and put the real evidence and articles you've found into your own words. Do your own analysis and critical thinking.
Example Conditional Use Statements

Example #7 (from Chandler Gilbert Community College, Miguel Fernandez)

1) Using a product or technology (ChatGPT, Dall-E, etc.) in the course to create or aggregate synthetic content for the course such as any course writing, brainstorming, generating a draft, a works cited source bank, answering discussion groups, substitute or impersonate you in zoom, classroom, breakout rooms, collaboration, group work, or other attendance activities, is considered academic misconduct similar to plagiarism or violations of the honor code.

2) Using a product or technology as identified above to help you edit your work (improve your quality as defined by course instruction, course definitions, standards & expectations, and rubrics) is not a violation of the honor code statement, as long as you cite the tool or identify it as a partner or augmentation in use for a course related activity before submitting your work.

Example #8 (from Plymouth State University, Pam Harland)

Within this course, you are welcome to use generative artificial intelligence (Ai) models (ChatGPT, DALL-E, GitHub Copilot, and anything after) with acknowledgment. However, you should note that all large language models have a tendency to make up incorrect facts and fake citations, they may perpetuate biases, and image generation models can occasionally come up with offensive products. You will be responsible for any inaccurate, biased, offensive, or otherwise unethical content you submit regardless of whether it originally comes from you or an Ai model.

If you use an Ai model, its contribution must be cited and discussed:
- What was your prompt?
- Did you revise the Ai model’s original output for your submission?
- Did you ask follow-up questions?
- What did you learn?

Having said all these disclaimers, the use of Ai models is encouraged, as it may make it possible for you to submit assignments and your work in the field with higher quality and in less time.

Sourced from https://docs.google.com/document/d/1RMVwzjc1o0Mi8Blw -JUTcXv02b2WRH86vw7mi16W3U/edit
Example Conditional Use Statements

Example #9 from Marc Watkins

AI-Assisted Writing vs. AI-Generated Writing

With the rise of AI writing assistants, students must take special care to ensure that they use this new technology ethically and honestly. In our class, we will distinguish between 'AI-assisted writing' verses 'AI-generated writing'. AI-assisted writing is only permitted in this course provided a student uses an AI writing assistant as a collaborative tool to help the student with the development and advancement of their own writing process. Collaborating with an AI writing assistant can include brainstorming, outlining, and drafting, so long as there is substantial writing, research, and composing by the student which is not generated solely by the AI. ‘AI-generated writing’ means there has been little or no involvement from the student as an author, with the majority of the writing being generated by an AI. The goal of using AI-assisted writing in this class is to help students develop their writing process and critical thinking, not to replace or substitute for either. Therefore, using an AI to generate writing or compositions without substantial original contribution from a student is neither acceptable nor allowed.

<table>
<thead>
<tr>
<th>Acceptable</th>
<th>Not Acceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AI-Assisted Writing</strong></td>
<td><strong>AI-Generated Writing</strong></td>
</tr>
<tr>
<td>• Use AI-assisted writing to brainstorm</td>
<td>• Cheat on the writing &amp; research process</td>
</tr>
<tr>
<td>• Explore new topics/ideas with AI-assisted writing</td>
<td>• Generate large chunks of text with little or no input from you as an author</td>
</tr>
<tr>
<td>• Use AI-assisted writing to explore potential counterarguments/ opposing points of view</td>
<td>• Trust something the AI has generated at face value</td>
</tr>
<tr>
<td>• Resee your writing by taking suggestions from your AI assistant to make improvements</td>
<td>• Use AI-generated text as a substitute for research or critical thinking</td>
</tr>
</tbody>
</table>

Be Aware:
- You will not be able to save anything the AI generates. If you want to use an idea or suggestion produced by the AI, you will need to copy and paste it into a Word.doc.

The AI output may contain material that is offensive, biased, or otherwise goes against the University Creed in practice, or material that is false or misleading or potentially harmful, or other problematic material the use of which may fall outside the protections of Academic Freedom and/or Free Speech--review all AI output carefully before using anything suggested by the AI within your academic work.
Generative artificial intelligence (GenAI) tools like Chat GPT, DALL-E, or GitHub CoPilot, that generate output may be used in this course in limited ways with proper documentation, citation, and acknowledgement.

In accordance with our course learning outcomes, you may use the following GenAI tools in the following ways: [list them here].

As a way to demonstrate your honest use of these tools and your learning process, you must:

1. keep histories of your chats and submit them when requested
2. cite the content that came from the GenAI tool using citations methods endorsed by the Library
3. reflect on the process of using the GenAI tool by submitting your responses to these questions:
   a. list your questions

NOTE: GenAI is known to fabricate sources, facts, and give false information. It also perpetuates bias. You should also be aware that there are copyright and privacy concerns with these tools. You should exercise caution when using large portions of content from AI sources for these reasons. Also, you are accountable for the content and accuracy of all work you submit in this class, including any supported by generative AI.

You are encouraged to reach out to me or the TAs for support, or reach out to any of the following UC San Diego academic support centers for academic assistance:

- The Commons’ Academic Achievement Hub for Learning Strategies, Content Tutoring or Supplemental Instruction
- The Commons’ Writing Hub for help with writing or other types of communication (e.g., presentations)
- The Library for research-based assignments
Crafting Your Allowed Policy
Crafting Your Allowed Use Policy

● You have designed or secured your assessments so that any GenAI use will either not undermine learning outcomes or will actually enhance their achievement.

● Explain how and why students are allowed to use GenAI tools
  ○ Make sure to tie back to learning outcomes for the course, but also each particular assessment.

● Create at least one activity that prepares students to use the tools properly and critically.

● Ensure students know that they are responsible for what they submit, whether content was generated by GenAI or not
  ○ So any inaccuracies, biases, mis/disinformation are the responsibility of the human author.

● To enhance critical thinking and AI literacy, require students to keep records of their chat history, version changes, etc, and acknowledge their use.
  ○ What tool was used
  ○ How was it used
  ○ How did it help them learn
  ○ How did it hinder their learning
  ○ How would they use it differently next time.

● Include this statement: “For more guidance on using GenAI, check out this Guide from our Library.”
Allowed Use Policy Caveats

- There are many ethical Concerns with GenAI
  - **Privacy**
  - **Data security**
    - FTC investigates OpenAI over data leak and ChatGPT's inaccuracy
  - **Equity issues**
    - Paid GPT4 is better than GPT3.5 (free), so will less affluent students be at a disadvantage in your class?
  - **Baked in biases**
  - Inaccurate information

- Because of these concerns, instructors shouldn’t require its use but rather provide alternative options
- You should teach students how to use GenAI tools effectively (next slide)
Teach students how to use the machines effectively

**Teach Prompting**

CREATE Framework for High Quality Prompt Craft in AI Tools

<table>
<thead>
<tr>
<th>C</th>
<th>Clarity</th>
<th>Clearly define the task or intent of the prompt, including specific information about the output.</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>Relevant info</td>
<td>Provide relevant details, including specific keywords and facts, the tone, audience, format and structure.</td>
</tr>
<tr>
<td>E</td>
<td>Examples</td>
<td>Use examples in the prompt to provide context and direction for the output.</td>
</tr>
<tr>
<td>A</td>
<td>Avoid ambiguity</td>
<td>Focus on the key information and delete unnecessary details in the prompt.</td>
</tr>
<tr>
<td>T</td>
<td>Tinker</td>
<td>Test and refine the prompt through multiple iterations. Explore different input versions to discover the best results.</td>
</tr>
<tr>
<td>E</td>
<td>Evaluate</td>
<td>Continuously evaluate the output and adjust the prompt as needed to improve the quality.</td>
</tr>
</tbody>
</table>

From Tom Barrett (image linked to source)

**Teach Critical Thinking**

EVALUATING CHATGPT-GENERATED CONTENT

**Introduction**
As educators and researchers, it's essential to critically assess the accuracy, relevance, and quality of AI-generated content. This chapter provides guidelines for evaluating ChatGPT-generated content and offers tips for integrating human judgment into the evaluation process.

This chapter is divided in the following sections. Click the links below to jump down to a section that interests you:

- Establish a Clear Purpose
- Assess the Accuracy
- Evaluate Relevance
- Examine the Quality
- Integrate Human Judgment
- Address Ethical Considerations
- Conclusion

From ChatGPT in Higher Education book (image linked to source)
Example Allowed Use Statements

Example #1 (from Wharton School, Ethan Mollick)

I expect you to use AI (e.g., ChatGPT and image generation tools) in this class. In fact, some assignments will require it. Learning to use AI is an emerging skill and I provide tutorials on how to use them. I am happy to meet and help you with these tools during office hours or after class.

Be aware of the limits of ChatGPT, such as the following:

- If you provide minimum-effort prompts, you will get low-quality results. You will need to refine your prompts in order to get good outcomes. This will take work.
- Don’t trust anything it says. If it gives you a number or fact, assume it is wrong unless you either know the answer or can check with another source. You will be responsible for any errors or omissions provided by the tool. It works best for topics you understand.
- AI is a tool, but one that you need to acknowledge using. Please include a paragraph at the end of any assignment that uses AI explaining what you used the AI for and what prompts you used to get the results. Failure to do so is in violation of academic honesty policies.
- Be thoughtful about when this tool is useful. Don’t use it if it isn’t appropriate for the case or circumstance.
Example Allowed Use Statements

**Example #2 (from State University of New York, Oswego, Mohammad Tajvarpour)**

This course encourages and embraces the ethical use of Artificial Intelligence (AI). Throughout the course, it is essential to utilize generative AI systems, including but not limited to Text to Text, Text to Image, Text to Audio, and Image to Video, in a manner that upholds integrity.

As a student in this course, you are expected to actively incorporate AI tools while upholding integrity. You hold the responsibility to assess the integrity and impartiality of your submissions, ensuring they remain unbiased. It is important to recognize that AI has inherent limitations, and human supervision is necessary to verify the quality and appropriateness of the output. Thus, exercising responsible AI usage requires human oversight and verification.

Moreover, you are required to thoroughly read and certify the content of each submission. This entails a careful review to confirm the accuracy and suitability of the AI-generated content before submission.

**AI Acknowledgement:** To promote transparency, every assignment must include an "AI Acknowledgement" section. This section should clearly explain how AI was employed in the preparation and composition of the assignment. This acknowledgement allows us to acknowledge the role of AI in the learning process and understand its impact on the work produced.

By adhering to this AI policy, we aim to cultivate a learning environment where AI tools are utilized responsibly, ensuring the integrity of our work and promoting ethical AI practices throughout the course.

Sourced from https://docs.google.com/document/d/1RMVwzjc1o0Mi8Blw_-JUTcXv02b2WRH86vw7mi16W3U/edit
Example Allowed Use Statements

**Example #3 (from Boston College Modern, Erin Baumann)**

Understanding how to live and work with digital tools and platforms – from statistical software to data visualization tools to artificial intelligence tools – is an essential skill for all students in this day in age. In this course I encourage you to use all the tools available to you (and that you are familiar enough with to use efficiently and effectively) to aid your learning. This includes artificial intelligence (AI) copywriting and chatbot tools such as ChatGPT, Humata.ai, DALL-E 2, and others. However, as with any other resource you use to aid your work in this course, you must acknowledge any and all AI tools that you use in the development of your work. You must also substantially revise any writing or work produced by an AI tool before submitting it for credit in this course.

If you use an AI tool at any point in the development and/or creation of your work for this course – including discussion board posts, exams, and projects – you must include appropriate citations and the acknowledgment below in your Reference list:

Name of publisher/tool producer. (year). Name of AI tool (version date) [Large language model].

You must also include a full transcript of the writing or work produced by the AI tool in an appendix to your work.

For more details on how to cite ChatGPT and other generative AI tools see this resource from the American Psychological Association.

Sourced from https://docs.google.com/document/d/1RMVwzjc1o0Mi8Blw_-JUTcXv02b2WRH86vw7mi16W3U/edit
Generative artificial intelligence (GenAI) tools like Chat GPT, DALL-E, or GitHub CoPilot, that generate output may be used in this course as you determine appropriate, as long as you do so honestly through proper documentation, citation, and acknowledgement.

As a way to demonstrate your honest use of these tools and your learning process, you must:

1. keep histories of your chats and submit them when requested
2. cite the content that came from the GenAI tool using citations methods endorsed by the Library
3. reflect on the process of using the GenAI tool by submitting your responses to these questions:
   a. list your questions

NOTE: GenAI is known to fabricate sources, facts, and give false information. It also perpetuates bias. You should also be aware that there are copyright and privacy concerns with these tools. You should exercise caution when using large portions of content from AI sources for these reasons. Also, you are accountable for the content and accuracy of all work you submit in this class, including any supported by generative AI.

You are encouraged to reach out to me or the TAs for support, or reach out to any of the following UC San Diego academic support centers for academic assistance:

- The Commons' Academic Achievement Hub for Learning Strategies, Content Tutoring or Supplemental Instruction
- The Commons’ Writing Hub for help with writing or other types of communication (e.g., presentations)
- The Library for research-based assignments
Entry Point #5: Crafting your GenAI & AI Policy

The box in green is where you're headed next if you continue to progress through the slides. Otherwise, you can click on the next topic you want to explore.

Why a Written Policy is Needed

Choose a Policy Path

Practical Ideas for Crafting your Policy

Additional Readings
Practical Ideas
Practical Idea: Talk with Your Students

● Avoid crafting your GenAI & AI Policy yourself without student input
  ○ Students are already using GenAI - perhaps you should find out if they understand what GenAI does and how it works, but also how & why they are currently using it
  ○ **Sample questions you might want to ask your students**
    ■ You could do this anonymously ahead of the first class

● Talk to your students about GenAI & Academic Integrity
  ○ They want to have these conversations
  ○ **Guiding Principles for talking with your students**
  ○ Refer students to [this Library Guide on GenAI](#)

● Provide students with a resource to help them make decisions about GenAI Use - when it’s ethical and when it’s not - and then hold a class discussion about it
  ○ **You’re welcome to use this one!**
Practical Ideas for Crafting Your GenAI & AI Policy

● Use Pepperdine’s Syllabus Statement generator tool
  ○ NOTE: the Turnitin Detection tool is not reliable and you don’t have access to it so please don’t include a statement that students work will be submitted to it

● Consider Advice from Ethan Mollick
  ○ Under what circumstances AI use is permitted or forbidden
  ○ How students should cite or credit AI
  ○ A warning about the technology’s tendency toward hallucination (i.e., deceptive data) and clear rules regarding students’ accountability for AI output
  ○ A notice about using AI ethically and responsibly
  ○ Discussion of the need to use AI as a tool to learn, not just to produce content

● Ponder if any of these Do’s or Don’ts work for your class:

<table>
<thead>
<tr>
<th>Do</th>
<th>Don’t</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Ask for research guidance before writing</td>
<td>● Ask it to write your content for you</td>
</tr>
<tr>
<td>● Use it for brainstorming (like you would a friend)</td>
<td>● Blindly trust AI-generated content</td>
</tr>
<tr>
<td>● Ask questions about course concepts you don’t understand</td>
<td>● Do anything that would violate course or institutional integrity standards</td>
</tr>
<tr>
<td>● Proofread your work</td>
<td></td>
</tr>
</tbody>
</table>
Entry Point #5: Crafting your GenAI & AI Policy

The box in green is where you're headed next if you continue to progress through the slides. Otherwise, you can click on the next topic you want to explore.

Why a Written Policy is Needed
Choose a Policy Path
Practical Ideas for Crafting your Policy

Additional Readings

Next Step

UC San Diego
ACADEMIC INTEGRITY OFFICE
Additional Readings

Detecting GenAI Output

- [AI-Detectors Biased Against Non-Native English Writers](#)
- [Testing of Detection Tools for AI-Generated Text](#) (research article)
- [OpenAI’s Blog - “How can educators respond to students presenting AI-generated content as their own?”](#)

Listening to Students

- [What Students Said About the Spring of ChatGPT](#)

Guides for Students

- [University of Sydney’s “Welcome to AI in Education”, a site for students built by students](#)
- [Thompson Rivers University Library’s Artificial Intelligence: A Guide for Students](#)
- [UC San Diego Library’s GenAI Guide for Students](#)
Thank You!

We hope that this Guide was helpful, even if it raised more questions than it answered and therefore stimulated your learning and thinking.

This Guide will continually be updated, so bookmark it.

To provide feedback on the Guide or ask questions, or to join a Community of Practice, please contact us using this form.

For 1:1 guidance or to explore available workshops on any of these topics, contact any of the following:

- Academic Integrity & Triton Testing
- Engaged Teaching Hub
- Writing Hub
Version Update Notes

- Released September 17, 2023
- This is where we’ll keep notes on updates made after the above date
- 9/29/23: Added Creative Commons licence; see Slide #2
- Planned future updates:
  - Adding video explainers for the different sections
  - Adding in concrete examples from faculty as they share changes they’ve made