

# Generative AI Resources for Educators

September 2024

Carolyn Scheese, DNP, RN & Jesika Chavez-England, MS, RN

This handout provides a curated list of Generative AI tools and resources tailored for educators. Whether you're exploring AI for the first time or looking to integrate advanced techniques into your teaching, these resources offer a wide range of applications to enhance educational experiences.

## GenAI Tools

Communication		
Tool	URL	Comment
ChatGPT	<a href="https://chat.openai.com">chat.openai.com</a>	Versatile AI chatbot for generating text-based content, answering questions, and simulating conversations. ChatGPT 4o & 4o mini - Free ChatGPT 4 + - Monthly fee. (~\$20)
ChatSonic	<a href="https://writesonic.com/chat">writesonic.com/chat</a>	Alternative to ChatGPT with additional features like real-time data access and image generation, making it suitable for more tailored educational outputs.
Claude	<a href="https://claude.ai">claude.ai</a>	AI chatbot with advanced conversational abilities, useful for simulating discussions, providing instant feedback, or acting as a virtual teaching assistant.
HubSpot	<a href="https://hubspot.com">hubspot.com</a>	AI chatbot generator and customer relationship management tool. Useful for managing communication with students and other stakeholders.

Content Creation		
Tool	URL	Comment
Adobe Express	<a href="https://adobe.com/express">adobe.com/express</a>	AI-powered tool for creating professional-quality videos and graphics. Sign in with <a href="mailto:UNID@utah.edu">UNID@utah.edu</a> As a UofU employee/student, you have access to the Adobe Creative Cloud Suite at no cost through the Office of Software Licensing. <a href="https://software.utah.edu/adobe.php">https://software.utah.edu/adobe.php</a> Adobe Apps tutorials can be found at <a href="https://creativecloud.adobe.com/learn">https://creativecloud.adobe.com/learn</a>
Copy.ai	<a href="https://copy.ai">copy.ai</a>	Generates high-quality written content such as blog posts, social media updates, and ad copy. Ideal for educators creating course materials or marketing content.

Dall-E 2	<a href="https://openai.com/dall-e-2">openai.com/dall-e-2</a>	AI-driven image generator that creates visuals from textual descriptions. Excellent for creating custom illustrations or visual aids for presentations.
Fliki.ai	<a href="https://fliki.ai">fliki.ai</a>	Converts text into videos with AI-powered voiceovers, making it easy to create engaging video content for online courses or student projects.
Invideo.ai	<a href="https://fliki.ai">fliki.ai</a>	AI video generator that allows for the upload of custom images, enhancing video content with personalized visuals.
Jasper AI	<a href="https://jasper.ai">jasper.ai</a>	AI writing assistant for generating marketing copy, social media posts, and other content quickly.
MidJourney	<a href="https://midjourney.com">midjourney.com</a>	AI image creator with a focus on artistic and highly detailed visual content. Operates via Discord, making it suitable for creating unique visuals for projects.
Runway ML	<a href="https://runwayml.com">runwayml.com</a>	A suite of AI-powered creative tools for video editing, image manipulation, and more. Ideal for educators involved in multimedia production.
Starryai	<a href="https://starryai.com">starryai.com</a>	AI image creator for generating artwork and visual content from text. Useful for creating custom illustrations for educational materials.
Synthesia	<a href="https://synthesia.io">synthesia.io</a>	Generates professional-grade videos using AI avatars and voiceovers. Perfect for creating educational content, training videos, or student assessments.

Productivity		
Tool	URL	Comment
CoPilot (Microsoft CoPilot)	<a href="https://copilot.microsoft.com">copilot.microsoft.com</a>	AI-powered code suggestions integrated into GitHub and Microsoft 365. Enhances productivity by providing context-aware suggestions in documents and code. Best used with Microsoft Edge Browser.  University of Utah FREE access.
DeepL	<a href="https://deepl.com/translator">deepl.com/translator</a>	Highly accurate AI-powered translation tool, supporting nuanced language translation, useful for creating multilingual educational materials.
Gemini	<a href="https://gemini.google.com/app">gemini.google.com/app</a>	A Google AI Chrome add-on that boosts productivity by integrating AI-driven tools for research, writing, and organizing tasks.
Notion AI	<a href="https://notion.so/product/ai">notion.so/product/ai</a>	Integrated within Notion for enhancing note-taking, writing, and project management. Helps educators organize their courses and manage projects efficiently.

Educational Tools		
Tool	URL	Comment
Character.AI	<a href="https://beta.character.ai">beta.character.ai</a>	Allows educators to create and interact with AI-powered characters for storytelling and conversation simulations, enriching the learning experience.
Khan Academy	<a href="https://khanacademy.org">khanacademy.org</a>	Features Khanmigo, an AI-powered learning companion that assists with K-12 education. Free for teachers, it enhances student engagement and personalized learning.
Mage.space	<a href="https://mage.ai">mage.ai</a>	AI image creator with an easy-to-use interface, suitable for generating custom visuals for educational content.
MagicSchool.ai	<a href="https://magicschool.ai">magicschool.ai</a>	Offers a suite of free AI-powered educational tools and resources specifically designed for teachers to improve their classroom activities and student outcomes.

Advanced AI		
Tool	URL	Comment
Hugging Face	<a href="https://huggingface.co">huggingface.co</a>	Platform to create custom chatbots or explore a wide variety of AI models and datasets. Ideal for educators interested in experimenting with AI in their courses.
Perplexity AI	<a href="https://perplexity.ai">perplexity.ai</a>	AI-powered search engine that provides direct answers with source citations, great for quick research or generating accurate references for academic work.

## Prompt Engineering

Creating effective prompts is key to getting the most out of AI tools like ChatGPT. This section outlines the essential components of crafting high-quality prompts, practical tips, and advanced techniques for experienced users.

### Key Components of an Effective Prompt

#### Role Assignment:

- **Purpose:** Clearly define the role you want the AI to assume, along with the level of expertise required. This helps the AI adopt the appropriate perspective and deliver more relevant responses.
- **Example:** "You are an experienced nurse educator. Explain the process of developing a curriculum for a new nursing program."

#### Contextualization:

- **Purpose:** Provide necessary context to help the AI understand the scope and relevance of the task. Include details like tone, target audience, and the required level of understanding to tailor the output.
- **Example:** "Write a patient education guide on managing Type 2 diabetes, using simple language suitable for someone with a high school education level."

#### Task Definition:

- **Purpose:** Specify exactly what you want the AI to accomplish, including the desired output format. Clear task definition ensures the AI delivers precise and relevant results.
- **Example:** "Generate a table comparing the different types of pain assessment tools used in post-operative care, including their advantages and disadvantages."

#### **Specificity:**

- **Purpose:** The more detailed and specific your prompt, the more targeted and accurate the AI's response will be. Reducing ambiguity minimizes the risk of irrelevant or incorrect answers.
- **Example:** "Describe the steps for conducting a needs assessment in nursing education, focusing on how to gather and analyze data from students and faculty."

### **Practical Tips for Effective Prompting**

**Start with Simplicity:** Begin with basic prompts to observe how the AI responds. Use these initial interactions to refine your approach for better outcomes.

- **Example:** "What are the benefits of using AI in healthcare?"

**Incorporate Examples:** Including examples in your prompts can guide the AI and set clear expectations for the type of response you're looking for.

- **Example:** "Explain the difference between formative and summative assessments, using examples from nursing education."

**Specify Output Format:** Be explicit about the format you want, whether it's a list, paragraph, bullet points, or something else.

- **Example:** "Provide a bullet-point list of best practices for pain management in post-operative care."

**Iterative Refinement:** Adjust your prompts based on the responses you receive. Continuously refine your prompts to enhance the quality of the AI's outputs.

- **Example:** "Refine the previous response to include specific examples of how each best practice is implemented in a clinical setting."

**Use Modifiers Wisely:** Words like "briefly" or "in detail" can help you control the depth of the AI's responses. You can also specify tone or the level of understanding, such as asking the AI to explain something as it would to a 5-year-old.

- **Example:** "Explain the concept of insulin resistance as you would to a 5-year-old."

### **Advanced Techniques for Experienced Users**

**Incorporate Logic and Reasoning:** Challenge the AI to solve problems or explain processes. This can be especially useful for developing critical thinking skills in students.

- **Example:** "Analyze the potential impact of introducing a new electronic health record (EHR) system in a large hospital, considering both benefits and challenges."

**Address Biases:** Craft your prompts carefully to avoid reinforcing biases. This is crucial for maintaining educational integrity and promoting an inclusive learning environment.

- **Example:** "Describe the qualities of an effective leader in healthcare without assuming gender-specific traits."

**Encourage Creativity:** Use prompt engineering to inspire creativity in assignments, such as storytelling or complex problem-solving. Think beyond traditional applications to fully leverage the AI's capabilities.

- **Example:** "Write a short story from the perspective of a nurse dealing with the ethical dilemmas of end-of-life care."

## Tips for Optimizing Prompt Engineering

- **Start Over if Needed:** If you start to get less effective results, consider starting over with your most refined prompt.
- **Save Successful Prompts:** Keep a record of prompts that yield excellent results so you can reuse them in the future.
- **Ask for Help:** You can ask GenAI to help you generate a prompt if you're unsure where to start.

## Examples of Prompt Engineering

**ChatGPT Link:** [\[AACN\] Curricular Mapping Assignment & Rubric Example](#)

**Prompt:** for Rubric:

Using [xxxxxx], please generate a rubric with 5 categories (excellent, proficient, developing, beginning, missing). The output should be in a table format with the categories across the top and criteria listed on the left side. Generate points across the rubric for each category with excellent = full points and missing = 0. Provide a description for each criterion according to the category.

**Chat GPT Link:** [Rubric Creation Example](#)

**TIP:** When trying to add additional content into a dialogue box (on a PC), **use Shift +Enter** to return the cursor to the next line without submitting the discussion, then paste or enter additional information.

**Video Link using ChatGPT:** [Improving a Pathology Assignment](#)

**Video Link using ChatGPT:** [Generating Quiz Questions](#)

## Ethical Considerations in AI Usage

When integrating AI into educational practices, it is essential to consider the ethical implications to promote an inclusive and fair learning environment. Here are key points to keep in mind:

- **Avoiding Bias:** AI models can inadvertently reinforce biases. It's crucial to craft prompts and use tools in ways that do not perpetuate stereotypes or exclusion.
- **Privacy:** Ensure that any data shared with AI tools is handled in compliance with privacy regulations, particularly when dealing with student information.
- **Transparency:** Be transparent with students about when and how AI tools are being used in their education. This fosters trust and ensures they understand the role of AI in their learning journey.
- **Inclusivity:** AI tools should be used to enhance learning opportunities for all students, regardless of background. Incorporate Universal Design for Learning (UDL) principles to ensure content is accessible to everyone.
- **Critical Evaluation:** Encourage students to critically evaluate AI-generated content, understanding that AI can make mistakes or generate biased outputs.

By keeping these considerations in mind, educators can use AI responsibly and effectively, enriching the learning experience while maintaining ethical standards.

## Articles

Mollick, E., & Mollick, L. (2022). New Modes of Learning Enabled by AI Chatbots: Three Methods and Assignments. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4300783>

Yee, Kevin; Whittington, Kirby; Doggette, Erin; and Uttich, Laurie, "60+ Ideas for ChatGPT Assignments" (2023). UCF Created OER Works. 8. <https://stars.library.ucf.edu/oer/8>

## Newsletters

### SuperHuman

- **Overview:** A daily AI update newsletter that delivers quick, concise information on the latest AI trends, tools, and breakthroughs. Perfect for busy professionals, the newsletter takes less than 4 minutes to read.
- **Link:** [SuperHuman](#)

### HEALTHCARE BREW

- **Overview:** A healthcare-focused newsletter that covers the intersection of AI and healthcare. It provides insights on how AI is transforming patient care, medical research, and healthcare administration.
- **Link:** [HEALTHCARE BREW](#)

## Online Courses

### *AI For Everyone* by Andrew Ng (Coursera)

- **Overview:** A beginner-friendly course that covers the basics of AI, its applications, and its impact on society. No prior knowledge of AI is required, making it accessible for educators and healthcare professionals.
- **Link:** [AI For Everyone](#)

### *Artificial Intelligence in Healthcare* by Stanford University (Coursera)

- **Overview:** This course provides a comprehensive introduction to AI in the healthcare sector, including real-world case studies and ethical considerations.
- **Link:** [Artificial Intelligence in Healthcare](#)

### *Elements of AI* by the University of Helsinki

- **Overview:** A free online course designed to demystify AI, covering both technical and non-technical aspects. Ideal for those who want to understand how AI works and its potential uses in various fields.
- **Link:** [Elements of AI](#)

### *7 AI Classes You Can Take Online for Free*

- **Overview:** A curated list of free AI courses available online, covering various topics from machine learning to AI ethics. These classes are ideal for those looking to build or expand their AI knowledge without a financial commitment.
- **Link:** [Explore Free AI Classes](#)

### *Online Classes by Google and Stanford Experts*

- **Overview:** This resource offers a selection of online classes led by experts from Google and Stanford, covering cutting-edge AI technologies and their applications across different industries.

- **Link:** [Google and Stanford AI Classes](#)

#### ***Adobe Creative Skills Series (University of Utah)***

- **Overview:** A specialized series of online courses offered by the University of Utah, focusing on creative skills using Adobe tools. These courses include AI-powered features to enhance graphic design, video production, and more.
- **Link:** [Adobe Creative Skills Series](#)

#### ***Machine Learning for Healthcare***

- **Overview:** A focused course that dives into the applications of machine learning in healthcare, providing insights into predictive modeling, personalized medicine, and AI-driven diagnostics.
- **Link:** [Machine Learning for Healthcare](#)

## Assignment Example: Introducing GenAI in the Classroom

### Assignment

#### Mod 4 - Practice Prompt Engineering Using ChatGPT & Other Tools

##### Description

In this assignment, you'll utilize ChatGPT and other AI technologies to explore how the quality of prompts impacts the output and its reliability. You'll employ a range of AI tools using a variety of prompts, and you'll explore how the nature of inputs (structured or unstructured) influences the output. You will also explore various applications of genAI tools.


Note: Portions of this assignment were created using ChatGPT 3.5 & 4.

##### Purpose

To understand the basics of using genAI tools, explore their capabilities and to understand and practice the art of prompt engineering in healthcare applications using genAI tools. The goal of this assignment is to explore and learn. The key to this task is experimentation. Don't be afraid to try different prompts and see how the AI responds. Happy learning! 😊



## Instructions

Ensure you have viewed the module videos and completed the assigned readings, especially [Principled Instructions Are All You Need - Prompt Engineering.pdf](#)  (see table with prompt ideas).

Instructions: Complete the following Tasks 1-7.

### Task 1: Introduction to [ChatGPT](#)

1. Create an online account with ChatGPT. The free account is sufficient.
2. Research about ChatGPT: What is it? How does it work? What are its applications? Hint: you can use ChatGPT to learn more about ChatGPT and other AI tools.
3. Write a brief one-paragraph summary of your findings.

### Task 2: Using ChatGPT to learn about things

1. **Interact and learn with ChatGPT:** Start by asking simple questions like "What is curriculum development?" or "What is a needs assessment and why is it important do a needs assessment prior to creating a new piece of curriculum?". Then, ask it to explain more complex healthcare concepts like how insulin works in the body or education related questions. You could also ask it to generate a patient education handout on a specific health topic. Follow good prompt engineering practices, as identified in the module readings.
2. **Document your interactions:** Keep a record of the prompts (inputs) you used and the responses (outputs) you received. Include screenshots or transcripts of AI interactions. **Check for Hallucinations:** Identify AI hallucinations by looking for responses that are off-topic, nonsensical, or factually incorrect based on expert medical knowledge. Note and discuss what worked well and what didn't. This will help you understand how to craft effective prompts.

### Task 3: Introduction to [Microsoft CoPilot](#) (or another GenAI tool of your choice)

1. Create an account with Copilot. (Note: As a student, you have free access to Microsoft 365. So, you can log in to Copilot by using: [UNID@uemail.utah.edu](mailto:UNID@uemail.utah.edu) then your regular university password).
2. Research about CoPilot: What is it? How does it work? What are its applications?
3. Write a brief summary of your findings.

### Task 4: Using Microsoft CoPilot

1. **Use CoPilot to create a course outline and at least 2 other tasks of your choice.** Upload a brief description of a course and - providing the parameters/constraints ask CoPilot to help you create an outline for this course. Using additional prompts ask it to create at least 2 additional tasks of your choosing.
2. Create an image of your choice. Revise it at least once.
3. **Document your interactions:** Similar to Task 2, keep a record of your prompts (inputs) and responses (outputs) and include screenshots or transcripts of AI interactions. Check for Hallucinations. Note and discuss any challenges you faced and how you overcame them. This will help you understand how to effectively use CoPilot.



#### Task 5: Introduction to another GenAI tool of your choice such as [Perplexity](#) or [Gemini](#) ➞

1. Create an online account as needed.
2. Research about this genAI tool: What is it? How does it work? What are its applications?
3. Write a brief summary of your findings.

#### Task 6: Using this additional genAI tool of your choice.

1. **Interact with the tool:** Start by asking simple questions like "I am a graduate student and just starting to take a course in curriculum development and evaluation. "Can you explain the importance of conducting a needs assessment before creating a new course?" Ask it to explain it one more time in simpler language (e.g. a 5-year-old). Ask at least 2 other questions.
2. **Document your interactions:** Keep a record of the prompts (inputs) and responses (outputs) and include screenshots or transcripts of AI interactions. Note and discuss what worked well and what didn't. This will help you understand how to craft effective prompts.

#### Task 7: Reflection

1. Reflect on your experiences: What did you learn? What surprised you? What challenges did you face and how did you overcome them? What hallucinations did you identify? How does this impact your level of trust in using AI? Ethical considerations in AI responses?
2. Compile a report. Include the summaries and documentation you created from each of the tasks above, including prompts used, AI responses, and your analysis.

### Submission Guidelines

- Compile a report documenting each task, including prompts used, AI responses, and your analysis.
- Include screenshots or transcripts of AI interactions as necessary.
- **Submit in Canvas by Tuesday, January 20th @ 11:59 pm**

### Criteria for Success

See the **instructions** for elements and the **rubric** below for details on how your score will be determined.


### Resources

See the [🔗 Practice Prompt Engineering Using ChatGPT Example](#) ↓


## How to create videos with ChatGPT

- Go to the ChatGPT website and log in.
- Now, go to the **explore** tab and search for VideoGPT by VEED or head over to [IO/video-gpt](https://www.veed.io/video-gpt)
- Click on **let's create a video!**
- Enter the video description that you want to generate and give additional details.
- You will get a link to your video and when you click on the link it will open as an editable video project from VEED.
- You can edit the video to match your needs and export it easily.


### Prompt Example on how to create video:

 **You**

Let's create a video!


 **VideoGPT by VEED**

Great! I'm excited to help you create a video. Could you please tell me about the theme or topic you have in mind for your video? Any specific details you can provide will be really helpful.

 **You**

Create a video about Transparent Assignment Design that has video or images throughout the video


1. Audience: Graduate Nursing Education students
2. Purpose: What is Transparent Assignment Design and how to incorporate it when designing curriculum
3. Tone and Style: educational tone that is engaging

 **VideoGPT by VEED**

Thank you for the details. Based on your input, here's a concept outline for the video:

1. **Target Audience:** Graduate Nursing Education students.
2. **Purpose:** Explaining 'Transparent Assignment Design' and its application in curriculum design.
3. **Tone and Style:** Educational yet engaging.
4. **Content Structure:**
  - Introduction to Transparent Assignment Design: Briefly introduce the concept.
  - Importance in Nursing Education: Emphasize its relevance in the nursing curriculum.
  - Step-by-Step Guide: Walk through the process of incorporating Transparent Assignment Design in curriculum planning.
  - Visuals: Use relevant images and videos throughout to illustrate key points and maintain engagement.
  - Conclusion: Summarize the key takeaways.

If this aligns with your vision say **Continue**, if not tell me how to change it!


 **You**


continue

The first prompt I did, did not include the words "throughout the video" and there was a lot of dead space or just a black screen.

10


## Video example using ChatGPT:


 **VideoGPT by VEED**

 Talked to veed.io ▾

Watch Video

0:47





VideoGPT by VEED • 4 Jan

Revolutionize Nursing  
Education with Transparen...

**Your video project was generated successfully!**

Remember, if the video script, voice, stock assets or music don't match exactly what you're looking for, you can easily edit the project in VEED's video editor. Click on the thumbnail above to watch your video & start editing!

Please help us to improve this technology by [sharing your feedback](#).

