

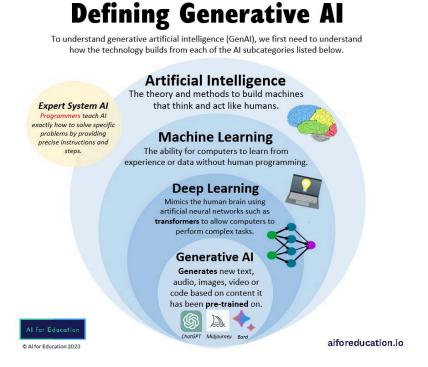
# **Generative AI Resources for Faculty**

### What is Generative AI?

Generative AI is a subset of artificial intelligence capable of creating new content, including text, images, audio, and code. These systems use advanced machine learning techniques like deep learning and neural networks to generate new content that mimics human-created content.

These Large Language Models are trained on vast data to predict and generate content. They do not search for and find existing content on the internet. Instead, each prompt is translated into a "token" that generative AI models use to process and generate content.

Generative AI is rooted in early machine learning research from the 1950s. This early AI, like the ones proposed to be discovered by the Turing Test, followed basic and exact instructions. As research continued, AI systems could follow pre-defined rules and logic, developing more interactive elements within set constraints. A good example is the 1997 Deep Blue chess game against Garry Kasparov. The 2000s saw the rise of machine learning, which required less precise language in prompting. In the 2010s, deep learning and neural networks allowed AI to understand conversational language and generate human-like responses. The Large Language Models of the 2020s have been the latest leap forward in a rapidly advancing multimodal artificial intelligence landscape.





# **Prompt Engineering**

Prompt engineering is the process of crating queries or inputs that guide generative artificial intelligence systems to produce desired results. This is often both an art and a science, as the specific words used, the order of the words, and the inclusion of various modifiers affect the algorithmic process that generates the outcome. If generative artificial intelligence is to be integrated into educational settings, the instruction of developing well crafted prompts is an essential skill to be included in pedagogical practice.

Effective prompts can improve the relevance and accuracy of Al-generated content, create more tailored responses to specific needs, and overcome ethical considerations of bias and other limitations inherent in the tool. While various prompt frameworks exist, there are some generally accepted practices that improve the effectiveness of the prompt:

- Be specific: clear, detailed instructions regarding the task and expectations of the output format increase the accuracy of the response.
- Give context: providing a role or lens for the AI to assume helps to better frame the response.
- Clear language: avoid using ambiguous or complex language that would require interpretation from the AI.
- Narrow and iterative approach: provide the AI one task at a time to refine and build upon for best results. This is often called "chain-of-thought" prompting and is useful for complex tasks.
- Include examples: providing a contextual example, if needed, can assist the AI in developing an appropriate output.

Generalized prompting examples and resources can be found in the Resources section of this document. Specific examples regarding teaching and learning are discussed in the Teaching and Learning section.

### **Generative AI Tools**

A variety of generative AI tools are available in today's market. In fact, it is an ever-growing field of a variety of tools that grow more specalizaed and nuanced as generative artificial intelligence continues to develop. While the sheer number of tools available can be overwhelming, it is important to note that many of these tools use the same four Large Langauge Models rather than incorporating new systems or models.

Below is a non-exhaustive list of the most common tools and their function as a starting point for usage. Further links are included in the Resources section.

- Generative AI Platforms
  - ChatGPT (OpenAI)



- o Claude.Al
- Copilot (Microsoft)
- o Gemini (Google)
- Perplexity
- o CleeAl
- Al for Presentations
  - Gamma App
  - o Beautiful Al
  - SlidesAl
  - o Canva
- Al for Images
  - Ideogram
  - Leonadro Al (Canva)
  - Copilot (Microsoft Dall-E)
  - o Gemini
  - o Adobe Firefly
- Al for Video Creation
  - o Visla
  - o Invideo
  - HeyGen

Note: While many of these generative artificial intelligence systems include paid and free versions, we are currently unable to purchase subscriptions with state funds due to ongoing legislative and regulatory actions. However, VCCS employees are able to access the Commerical Data Protection version of Copilot with their Germanna or VCCS login credentials. It is also recommended that individuals not use their VCCS or Germanna credentials for generative Al logins, particularly if they plan to purchase a paid subscription personally.

# **Generative AI in Teaching and Learning**

Generative artificial intelligence is a powerful tool to assist in teaching and learning. However, generative artificial intelligence cannot replace the key components of instruction, human relationship, and expertise in discipline-specific areas. Rather, the use of generative artificial intelligence tools is best equated to a starting point or efficient intern in assisting the expert instructor in rapidly developing draft ideas and materials to be adapted to specific learning objectives and environments. For each of the areas below, we should always work from a perspective of human-driven, Al-assisted.

# **Creative Brainstorming**

Using generative artificial intelligence for brainstorming is an important aspect of integrating the technology into pedagogical practice and innovation. This brainstorming can include a variety of



teaching and learning tasks to assist the instructor in examining new ideas or innovative approaches.

- "Generate five unique lesson plan ideas for introducing [subject/topic] to students with diverse learning needs."
- "What are some interactive activities that can help students understand complex concepts in [discipline]?"
- "Brainstorm creative ways to integrate technology into a lesson on [topic]."
- "What interdisciplinary connections can I make between [subject] and [related subject] in my class?"
- "Create a list of innovative ways to teach foundational skills in [course]."
- "Develop three assignment ideas that encourage critical thinking and real-world application of [concept]."
- "What types of group projects could help students collaborate on [topic] while building teamwork skills?"
- "Generate ideas for a semester-long project that combines research, creativity, and presentation skills in [discipline]."
- "What are some alternative assessment methods for gauging student understanding of [topic]?"
- "Create a list of multimedia assignments that could be used in place of traditional written essays in [course]."
- "Suggest five engaging discussion topics to spark debate and deep thinking about [controversial topic in your field]."
- "What are some ways to use role-playing or simulations to help students grasp [concept]?"
- "Brainstorm strategies for encouraging student participation in large or online classes."
- "What creative icebreaker activities can be used to introduce students to [topic] and build classroom rapport?"
- "Generate ideas for using storytelling as a tool to teach [subject]."
- "What interdisciplinary projects could combine [subject] with art, history, or science?"
- "Brainstorm ways to connect the teaching of [topic] with real-world events or community issues."
- "How can I integrate themes of sustainability or social justice into assignments for [course]?"
- "What are some project ideas that allow students to apply concepts from [discipline] to local community challenges?"
- "Develop ideas for a cross-disciplinary module that bridges [subject] and [another field]."
- "What types of assignments or projects can help students apply [subject] to their future career paths?"
- "Brainstorm ways to bring in guest speakers or industry professionals to enrich discussions on [topic]."
- "What are some ways to incorporate real-world case studies into lessons on [subject]?"



- "Generate project ideas that encourage students to solve a local community problem using skills from [course]."
- "How can I simulate workplace scenarios in class to help students prepare for careers in [field]?"
- "Generate ideas for teaching [subject] through a culturally responsive lens, acknowledging the diversity of student backgrounds."
- "What activities can help students explore how [concept] is applied or viewed in different cultures?"
- "What are some ways to integrate discussions of diversity, equity, and inclusion into [course topic]?"
- "How can I use student experiences and cultural backgrounds as resources for learning in [subject]?"
- "Brainstorm ways to create assignments that are relevant to diverse career paths and personal goals for students in [field]."

## **Assignment Creation**

Generative artificial intelligence tools can assist in developing diverse and engaging assignments that align with learning objectives. By inputting key parameters, such as topic, length, complexity, or objective, faculty can tailor responses to specific needs.

- "Create a research paper assignment that asks students to analyze the impact of [specific topic, e.g., climate change] on [specific industry, region, or population]."
- "Develop an argumentative essay prompt where students must defend or challenge the role of [historical event] in shaping [specific modern outcome]."
- "Design a comparative analysis assignment where students compare two contrasting theories or perspectives in [discipline]."
- "Draft a reflective essay prompt that encourages students to connect their personal experiences with a concept learned in [course]."
- "Create an assignment where students must explore the ethical implications of [topic] in modern society."
- "Develop a group project where students work together to propose a solution to a real-world problem related to [topic]. Include guidelines for roles, collaboration, and final presentation."
- "Design a project where students create a business plan or product prototype based on their understanding of [business concept]."
- "Create an interdisciplinary project where students must apply skills from [two subjects, e.g., biology and economics] to address a local community issue."
- "Draft a semester-long project in which students track and report on the progress of [global issue, e.g., deforestation, water scarcity, economic disparity]."
- "Develop a creative project where students use multimedia (video, art, etc.) to explain a complex concept in [discipline]."



- "Create a case study assignment where students must analyze a real or hypothetical scenario in [discipline] and propose evidence-based solutions."
- "Develop a problem-solving assignment where students work through a complex issue related to [topic] and present their findings in a structured format (e.g., report, presentation)."
- "Draft an assignment that asks students to evaluate the effectiveness of [policy, strategy, or theory] in [real-world situation]."
- "Create a 'what if' scenario where students must consider how historical events would have changed if [factor] was different."
- "Design a decision-making exercise where students must weigh different outcomes for a challenge related to [course topic] and justify their choice."
- "Design a discussion assignment where students must take a stance on [controversial issue] and engage in a respectful debate with their peers."
- "Create a discussion-based assignment where students respond to a reading or documentary on [topic] and reflect on its relevance to today's world."
- "Develop a forum discussion where students explore multiple perspectives on [social issue, e.g., healthcare, immigration, education reform] and propose potential solutions."
- "Design an assignment that encourages students to connect a recent lecture with a current event, providing real-world examples to back up their points."
- "Create a peer review discussion where students critique each other's work on [assignment type] and provide constructive feedback."
- "Draft an assignment where students must apply theoretical concepts from [discipline] to a practical scenario in their daily lives or work environment."
- "Create an assignment where students observe a real-world system or organization (e.g., business, ecosystem, government office) and write a report on how [course concepts] are applied."
- "Develop an internship or fieldwork reflection assignment where students relate their work experience to [specific theories or skills] learned in class."
- "Design an assignment where students create a budget, marketing plan, or operational strategy for a hypothetical business using concepts from [course]."
- "Create a lab-based assignment where students collect and analyze data to test a hypothesis related to [scientific principle]."
- "Develop a portfolio assignment where students compile their best work from the course, reflect on their progress, and set goals for improvement."
- "Create a skills assessment where students demonstrate mastery of [specific technical or practical skill] through a hands-on project or simulation."
- "Design a competency-based assignment that evaluates students' ability to apply [technical knowledge or practical skills] in a workplace setting."
- "Draft a performance-based task where students create a presentation or demonstration showing their expertise in [course subject]."
- "Create a peer-assessed assignment where students rate each other's performance on a group project, providing detailed feedback on teamwork and contributions."



### **Assessment Creation**

Generative artificial intelligence tools can assist in developing assessments by generating a variety of question types, from multiple-choice to short answer, based on topic and learning objectives. These tools can also be valuable in differentiating assessments based on student needs, accommodations, accessibility requirements, and various degrees of mastery.

- "Create a set of 10 multiple-choice questions assessing students' understanding of the key concepts in [topic], ensuring each question tests a different aspect of the material."
- "Design a multiple-choice exam that incorporates scenario-based questions, where students must apply their knowledge of [subject] to solve real-world problems."
- "Develop a quiz that mixes factual recall and higher-order thinking, focusing on the key themes from [chapter/topic]. Include at least two questions that challenge students to analyze and evaluate information."
- "Create three short-answer questions that require students to summarize and explain the primary arguments in [article/lecture topic]."
- "Develop an essay question where students must critically evaluate the impact of [event/theory] on [field or issue], using evidence from class discussions and readings."
- "Write a reflective essay prompt asking students to connect their learning in [course topic] to their own personal or professional experiences."
- "Design a question that requires students to compare and contrast two opposing viewpoints on [controversial issue], supporting their answer with specific examples."
- "Create an essay prompt asking students to explore the cause-and-effect relationship between [concept] and [outcome] in the context of [field]."
- "Develop a case study in which students must analyze a real-world situation in [field] and propose solutions based on their understanding of [key concepts]. Include follow-up questions to guide their analysis."
- "Create a scenario-based assessment where students are presented with a problem in [subject] and must identify the best course of action using course theories and models."
- "Draft a case study assignment where students work through a step-by-step decision-making process to resolve a challenge related to [topic], justifying their reasoning at each stage."
- "Design a case study that asks students to apply ethical principles learned in [course] to a challenging situation faced by professionals in [industry]."
- "Write a real-world scenario in which students analyze a set of data or a series of events and present their conclusions, supporting their claims with course material."
- "Develop a project-based assessment where students create a product, model, or presentation that demonstrates their understanding of [specific topic]."
- "Create a group project where students collaborate to design a solution to a problem faced by a business, government, or nonprofit organization in [field]. Include assessment criteria for teamwork, creativity, and application of course concepts."
- "Design a capstone project where students research a current issue in [discipline] and propose a comprehensive solution, supported by data and theory."



- "Write a project prompt that requires students to develop and present a case study based on a real-world challenge in [industry], incorporating both theoretical knowledge and practical skills."
- "Create an assessment where students design a service project or community outreach plan that applies key concepts from [course] to address a local issue."
- "Create a portfolio assessment where students compile their best work from the course and write a reflective essay on how their skills have developed over time."
- "Design a peer-assessment activity where students review each other's work on [assignment type], offering constructive feedback based on a rubric."
- "Create a self-assessment assignment where students evaluate their own learning progress throughout the course and set goals for future improvement."
- "Write a performance-based assessment where students demonstrate a skill or process learned in [course] through a hands-on project, video, or presentation."
- "Design an assessment where students must create an infographic, podcast, or video explaining a complex concept in [discipline] to a general audience."

### **Image Generation**

The use of Al-generated images can be beneficial in developing visual content for presentations or coursework, or reimagining information in a visual way. This capability of generative artificial intelligence can be useful in generating data visualizations, diagrams, conceptual images, or enhancing existing material with alternative perspectives.

Due to the nuanced needs of image generation, prompts will need to be carefully considered to ensure the correct output. Image generation is highly iterative, as it often requires multiple stages of refinement. Here are some example prompts that can be used or adjusted for your specific needs:

- "Generate an image showing the stages of mitosis, with each phase labeled clearly."
- "Create a 3D model of the solar system, showing the relative positions and sizes of the planets."
- "Generate a visual representation of the water cycle, illustrating evaporation, condensation, precipitation, and collection."
- "Design an infographic that explains the structure of an atom, including protons, neutrons, and electrons."
- "Create a diagram that shows the process of photosynthesis, highlighting key steps such as carbon dioxide absorption and oxygen release."
- "Generate a graph or chart visualizing the growth of a bacterial population over time, based on exponential growth rates."
- "Create an image illustrating a right triangle and label its sides according to the Pythagorean theorem."
- "Generate a historical map showing the territorial expansion of the Roman Empire at its peak."



- "Create a timeline of the major events leading up to the American Revolution, with visual representations of key moments."
- "Design a historical poster showcasing important figures from the Harlem Renaissance."
- "Generate an illustration of the ancient Egyptian pyramids, along with annotations explaining their historical significance."
- "Create a political cartoon-style image depicting the key issues of the Cold War, emphasizing the tension between the US and the Soviet Union."
- "Generate an image that visually explains the structure of the US government, including the legislative, executive, and judicial branches."
- "Create a flowchart showing the steps in the supply chain of a product, from raw materials to customer delivery."
- "Generate a pie chart that breaks down the different components of a business's operating costs (e.g., labor, materials, overhead)."
- "Design an image illustrating the concept of supply and demand, showing how changes in price affect quantity supplied and quantity demanded."
- "Create a visual representation of the marketing mix (4 Ps: Product, Price, Place, Promotion) for a hypothetical company."
- "Generate an infographic that explains different types of business structures (e.g., sole proprietorship, partnership, corporation)."
- "Create a chart showing the economic impacts of inflation on purchasing power, using visual symbols to represent the data."
- "Generate a diagram of the human respiratory system, labeling each part from the trachea to the alveoli."
- "Create an image illustrating the stages of wound healing, from inflammation to tissue repair."
- "Design an infographic that explains the symptoms and treatment options for Type 2 diabetes."
- "Generate a visual flowchart of the steps involved in performing a patient assessment in a clinical setting."
- "Create a cross-sectional illustration of the human heart, showing the flow of blood through the atria, ventricles, and major arteries."
- "Generate an image that visually explains the steps in administering CPR, including correct hand placement and compression depth."
- "Generate a collage of famous works of art from the Renaissance period, including pieces from artists like Michelangelo, da Vinci, and Raphael."
- "Create an image that visually represents the concept of 'Romanticism' in literature, including symbols like nature, emotion, and individualism."
- "Design an abstract image inspired by a poem from the Harlem Renaissance, using visual metaphors to represent the poem's themes."
- "Generate a scene that portrays the setting of Shakespeare's 'Macbeth,' with a dark, eerie forest and a castle in the background."
- "Create a visual representation of the hero's journey, showing each stage from 'Call to Adventure' to 'Return with the Elixir' in Joseph Campbell's model."



- "Generate an illustration that represents different types of irony (verbal, situational, dramatic) with examples from literature."
- "Generate a 3D rendering of a circuit board, labeling key components such as resistors, capacitors, and transistors."
- "Create a visual representation of a wind turbine, showing how kinetic energy from the wind is converted into electrical energy."
- "Design an image illustrating the main components of a car engine, labeling the pistons, crankshaft, and fuel injectors."
- "Generate a step-by-step diagram showing how a 3D printer creates an object from a digital model."
- "Create a cross-sectional image of a bridge structure, showing how the forces of tension and compression are distributed."
- "Generate a visual that explains the concept of cloud computing, showing how data is stored and accessed from remote servers."
- "Generate an image that visually explains Maslow's hierarchy of needs, with each level represented by a distinct color and symbol."
- "Create a diagram of the brain, labeling major regions such as the frontal lobe, parietal lobe, and cerebellum."
- "Design a flowchart that illustrates the cognitive stages of development in Piaget's theory of childhood learning."
- "Generate an infographic that explains different types of learning styles (visual, auditory, kinesthetic) and how to cater to each one."
- "Create an image representing the concept of classical conditioning, showing the association between a stimulus and a response."
- "Generate a visual timeline showing the history of psychological theories, from Freud's psychoanalysis to modern cognitive-behavioral therapy."
- "Generate a visual aid that explains the differences between connotation and denotation, using examples from common language."
- "Create an infographic that illustrates the communication process, from sender to receiver, including encoding, message, and feedback."
- "Design an image that explains the parts of speech in a sentence, such as nouns, verbs, adjectives, and adverbs, with examples."
- "Create a diagram that visually represents the components of effective public speaking, including voice, body language, and audience engagement."
- "Generate an illustration that compares and contrasts non-verbal communication styles across different cultures."
- "Design an image that shows the structure of a persuasive argument, including the claim, evidence, and counterarguments."

### **Rubric Creation**

Generative artificial intelligence tools can assist in the development of rubrics based on assignment objectives, learning goals, and differentiated assessment practices. The use of



rubrics assists in the consistence and transparency of grading. Also, the use of generative artificial intelligence to develop rubrics can assist in alternative rubric practices that are used in pedagogical approaches like *upgrading*, or *pedagogy of kindness*.

- "Create a rubric for a research paper that assesses the following criteria: thesis clarity, depth of research, analysis, use of evidence, organization, and writing mechanics."
- "Generate a rubric for a persuasive essay that evaluates the strength of the argument, evidence supporting the claims, counterargument inclusion, and overall structure."
- "Design a rubric for a reflective essay, focusing on personal connection to the material, depth of reflection, clarity of writing, and integration of course concepts."
- "Develop a rubric for a comparative analysis paper where students are evaluated on their ability to compare two theories or viewpoints, support their analysis with examples, and organize their writing logically."
- "Create a rubric for an argumentative essay, with specific attention to thesis development, argument structure, use of supporting evidence, and the quality of the conclusion."
- "Generate a rubric for a student presentation that evaluates content accuracy, organization, use of visual aids, delivery (e.g., voice, body language), and audience engagement."
- "Design a rubric for a group presentation where students are assessed on collaboration, clarity of content, coherence between presenters, and overall delivery."
- "Create a rubric for a persuasive speech that includes criteria for argument strength, rhetorical techniques, voice projection, pacing, and audience engagement."
- "Develop a rubric for a multimedia presentation that assesses both the quality of the content and the technical execution of the presentation (e.g., slides, audio, video)."
- "Generate a rubric for an informative speech that evaluates the depth of research, clarity of explanation, organization, and appropriate use of examples or anecdotes."
- "Create a rubric for a lab report that evaluates hypothesis clarity, methodology, data presentation, analysis of results, and adherence to proper formatting."
- "Develop a rubric for a scientific research paper that assesses the student's ability to explain their experiment, analyze the data, and connect their findings to existing literature."
- "Generate a rubric for a lab report where students are assessed on their ability to collect and present data, perform calculations, and provide a well-supported discussion."
- "Create a rubric for a fieldwork report, focusing on observation quality, data analysis, reflection on the experience, and relevance to course concepts."
- "Design a rubric for a biology lab report that includes criteria for accuracy in data collection, proper use of terminology, clarity in data interpretation, and overall report structure."
- "Generate a rubric for a group project that assesses each member's contribution, the
  effectiveness of collaboration, quality of the final product, and individual reflection on the
  group process."



- "Create a rubric for a group research project where students are evaluated on the division of labor, depth of research, integration of group ideas, and quality of the final presentation."
- "Design a rubric for a group project that focuses on collaboration, the cohesiveness of the final product, the relevance of the research, and the clarity of the group's communication."
- "Develop a rubric for a peer-reviewed group project, where students assess each other's contributions alongside the faculty's evaluation of the overall product."
- "Create a rubric for a community-based group project that evaluates teamwork, the impact of the project on the community, and the students' ability to reflect on their experiences."
- "Create a rubric for a video project where students are evaluated on content accuracy, creativity, production quality, and adherence to assignment guidelines."
- "Generate a rubric for an art or design project that assesses creativity, technical execution, relevance to the theme, and originality."
- "Design a rubric for a multimedia presentation where students are evaluated on content, visual quality, technical accuracy, and effective use of multimedia tools (e.g., audio, video, graphics)."
- "Create a rubric for a podcast project where students are assessed on clarity of the topic, quality of research, organization of the content, and production quality."
- "Develop a rubric for a digital storytelling project that evaluates narrative structure, creativity, use of multimedia elements, and engagement with the topic."
- "Create a rubric for a student portfolio where each piece is evaluated on relevance, depth of reflection, evidence of growth, and overall presentation quality."
- "Design a rubric for an art portfolio that assesses creativity, technical skill, thematic coherence, and progression of the student's work over time."
- "Generate a rubric for a writing portfolio where students are evaluated on the quality of individual pieces, improvement over time, reflection on their work, and attention to detail."
- "Develop a rubric for a professional portfolio in a career-oriented course, where students
  are assessed on the quality of their resumes, cover letters, work samples, and
  professional presentation."
- "Create a rubric for an ePortfolio where students are evaluated on their ability to showcase learning experiences, reflection, and use of digital tools to present their work."
- "Create a rubric for online discussion posts where students are assessed on their ability to contribute thoughtful, well-supported responses and engage with their peers' ideas."
- "Generate a rubric for an online discussion forum where students are evaluated on the frequency of their participation, depth of analysis, and the relevance of their contributions."
- "Develop a rubric for in-class or online discussions that assesses critical thinking, engagement with the material, and respectful interaction with classmates."
- "Design a rubric for peer-to-peer feedback in discussion boards, focusing on constructive critique, support for the classmate's argument, and evidence-based responses."



 "Create a rubric for participation in class discussions, evaluating frequency of contributions, the relevance of comments, engagement with classmates, and adherence to discussion guidelines."

#### **Feedback**

Generative artificial intelligence tools can assist in the development of feedback, both in areas of editing and revising and in developing templates for content suggestions based on learning objectives for the assignment. Generative artificial intelligence output should always be personalized, edited, and considered by the instructor before using in student feedback.

- "Provide constructive feedback to a student who has written a solid essay but needs to improve their use of evidence and citation."
- "Generate feedback for a student who has shown improvement in their writing but still struggles with organizing their thoughts clearly."
- "Give feedback to a student who has misunderstood a key concept in their assignment, explaining the correct approach without discouraging their efforts."
- "Create feedback that praises a student for their creativity while suggesting ways they can better adhere to the assignment guidelines."
- "Draft feedback for a student whose work shows promise but lacks attention to detail, such as grammar, spelling, or formatting issues."
- "Provide detailed feedback for a student's research paper that demonstrates strong research but lacks a clear thesis statement."
- "Generate feedback for a student's essay that has good ideas but needs more development in terms of analysis and critical thinking."
- "Create feedback for a student who wrote a strong conclusion but whose introduction and body paragraphs need more clarity and structure."
- "Provide feedback on a persuasive essay where the student's argument is strong, but the counterarguments are not addressed effectively."
- "Give feedback to a student whose essay uses excellent sources but fails to properly integrate them into the overall argument."
- "Provide feedback for a group project where the team worked well together, but the final product lacked cohesion and clarity."
- "Generate feedback for a group where one member did most of the work, and the other members need to contribute more equally in future projects."
- "Give feedback to a group that presented strong content but struggled with communication and collaboration during the project."
- "Create feedback for a group project that was completed on time, but the final report lacked depth in analysis."
- "Provide feedback for a group project where the team excelled in research but struggled with dividing the workload effectively."
- "Generate feedback for a student who actively participates in online discussions but often strays off-topic or provides surface-level responses."



- "Provide constructive feedback for a student who is new to online discussion forums and needs guidance on engaging more thoughtfully with their peers."
- "Create feedback for a student whose discussion posts are insightful but could benefit from more interaction and follow-up with classmates' comments."
- "Give feedback to a student who participates regularly but needs to cite more sources or evidence to support their ideas in online discussions."
- "Provide feedback for a student who is hesitant to participate in discussions and could use encouragement to share more of their thoughts."
- "Generate feedback for a lab report where the student collected good data but needs to improve their analysis and interpretation of the results."
- "Provide feedback for a student who wrote a clear and well-organized lab report but did not follow the proper formatting guidelines."
- "Create feedback for a lab report where the experiment was conducted correctly, but the discussion section lacked depth and connection to the hypothesis."
- "Give feedback to a student whose lab report includes excellent visual data representation but misses important details in the methodology section."
- "Provide constructive feedback for a student who conducted the experiment well but needs to explain their conclusions more thoroughly."
- "Generate feedback for a student who created a visually appealing multimedia project but did not meet the assignment's content requirements."
- "Provide feedback for a creative writing project where the student's ideas are original but the narrative lacks clear structure and development."
- "Create feedback for a student who presented a strong artistic concept but needs to refine their technical execution in the project."
- "Give feedback to a student who submitted a video project with great visuals but weak narration or explanation of the topic."
- "Provide feedback for a student whose creative project shows potential but needs to align more closely with the assignment guidelines."

# **Accessibility**

The use of generative artificial intelligence tools can greatly enhance accessibility in course design and materials, particularly in the areas of transcription, translation, alternative text development, and simplification of content for students with diverse learning needs. The accessibility of content, both in online and in non-virtual educational spaces, is a requirement from the United Stated government. Using generative artificial intelligence to enhance accessible learning environments can assist in rapdily and more effectively meeting these requirements.

Here are some example prompts that can be used or adjusted for your specific needs:

 "How can I design my syllabus to ensure it is accessible to students with diverse learning needs? Consider layout, font choices, and the use of clear, concise language."



- "What steps can I take to ensure that all course materials, such as PDFs, PowerPoints, and handouts, are fully accessible to students who use screen readers?"
- "Generate ideas for how I can integrate Universal Design for Learning (UDL) principles into my course structure to make content accessible for all students."
- "How can I create assignments that offer multiple means of engagement and representation, catering to students with different learning styles and abilities?"
- "What are best practices for creating accessible course content in an online learning environment, ensuring that all students can participate fully regardless of ability?"
- "What are some strategies I can use to make assessments, such as quizzes and exams, more accessible to students with disabilities, including those with visual or auditory impairments?"
- "How can I design alternative assessments for students who may struggle with traditional written exams due to learning disabilities or other challenges?"
- "What are effective ways to provide extended time or alternative test formats for students with disabilities without compromising the integrity of the assessment?"
- "Create a prompt that helps me develop assessment rubrics that are clear, concise, and easy for all students to understand, including those with cognitive disabilities."
- "What options can I provide for students to demonstrate their learning through accessible, alternative formats (e.g., video presentations, oral exams, visual projects)?"
- "How can I ensure that all videos I use in my course, whether created by me or external sources, include accurate captions or transcripts for students with hearing impairments?"
- "What are some ways to provide audio descriptions for visual elements in videos or presentations to make them accessible to students with visual impairments?"
- "Create a plan for using accessible images in my course materials, including providing alternative text (alt text) that accurately describes the content for students who use screen readers."
- "How can I make my classroom or online presentations more accessible by using accessible color schemes, fonts, and contrast ratios?"
- "Generate ideas for creating interactive multimedia assignments that are accessible to students with mobility impairments who may use alternative input devices."
- "What are some ways to create a more inclusive classroom environment where all students, regardless of their physical, cognitive, or sensory abilities, feel welcome and able to participate?"
- "How can I adjust my classroom participation and group work policies to be more inclusive for students with disabilities, including those with social anxiety or communication challenges?"
- "Generate strategies for incorporating accessible seating arrangements, note-taking accommodations, and assistive technologies in a physical classroom setting."
- "How can I create a learning environment that supports students with mental health challenges by offering flexibility in deadlines, attendance, or participation?"
- "What are some ways to ensure that classroom discussions, group activities, or lab sessions are inclusive for students who use assistive technology or require specific accommodations?"



- "How can I make my online course materials, including discussion boards and assignments, fully accessible to students who use screen readers, keyboard navigation, or other assistive technologies?"
- "What steps can I take to ensure that my course's Learning Management System (LMS) is accessible, particularly for students with visual impairments or mobility challenges?"
- "Generate ideas for creating accessible online exams that accommodate students with disabilities, ensuring that time limits, question formats, and navigation are accessible."
- "How can I design online discussion forums to be more accessible for students who have difficulty participating in real-time discussions due to cognitive or physical disabilities?"
- "What are some best practices for creating accessible online course content that meets Web Content Accessibility Guidelines (WCAG) standards?"
- "What are some assistive technology tools that I can recommend to students to help them access course materials more easily, such as screen readers, text-to-speech tools, or speech-to-text programs?"
- "How can I integrate assistive technology into my course delivery to ensure that students with disabilities have equal access to lectures, assignments, and discussions?"
- "Generate ideas for how I can provide digital resources (e.g., eBooks, PDFs) in accessible formats, such as providing options for large print, Braille, or audio versions."
- "How can I design assignments and activities that allow students to use their assistive technologies (e.g., voice recognition software, alternative keyboards) effectively?"
- "What are some strategies for using Al-based tools to assist students with disabilities in engaging with course content and completing assignments?"
- "How can I communicate with students about available accommodations and ensure they feel comfortable requesting the support they need?"
- "Generate ideas for creating accessible office hours or virtual meetings, including the use of captions, sign language interpreters, or alternative communication methods."
- "What are some strategies for building flexibility into communication methods (e.g., email, discussion boards, video chats) to support students with varying communication preferences and needs?"
- "How can I collaborate with the campus disability services office to ensure that students with disabilities receive the appropriate accommodations and support in my course?"
- "What steps can I take to ensure that my course communication, including announcements and emails, is accessible to all students, including those who use assistive technology?"
- "What teaching strategies can I use to make my lectures more accessible, such as providing transcripts, using clear language, and breaking down complex ideas into manageable segments?"
- "How can I adapt my teaching methods to be more inclusive of neurodiverse students, offering flexibility and varied approaches to learning?"
- "Generate strategies for using visual, auditory, and kinesthetic teaching methods to reach students with different learning preferences and needs."



- "How can I create assignments that offer multiple means of expression, allowing students to demonstrate their learning in ways that align with their strengths and abilities?"
- "What are some ways to implement Universal Design for Learning (UDL) strategies in my teaching to make learning more accessible to all students?"
- "Generate concise alt text for an image of [describe the subject of the image] that explains the key details and purpose of the image."
- "Write alt text for a diagram of [describe the diagram, e.g., the human circulatory system] that describes its main components and function."
- "Create alt text for a [chart, graph, map, etc.] showing [describe the data or content, e.g., a pie chart showing the distribution of renewable energy sources in 2020]."
- "Generate alt text for an infographic about [topic] that describes the information being visually represented, including key points."
- "Provide alt text for a photo of [historical figure, location, event] that explains the context and main visual elements of the image."

# **Generative AI in Non-Teaching Needs**

Outside of teaching and learning needs, there are various administrative tasks that generative artificial intelligence tools can assist completing to improve efficiency, accuracy, and better management of resources. While the needs surrounding administrative tasks can quickly shift and change, implementing solutions using generative artificial intelligence tools can assist in providing more opportunities for instructors to spend less time in administrative tasks and more time interfacing with students.

### **Recommendation Letter Writing**

Generative artificial intelligence tools can assist in the development templated or draft letters of recommendation for students. These drafts can be based on carefully considered prompts that include student achievements, student goals, and desired tone. However, as in all generated output, instructor review and personalization are crucial.

- "Write a recommendation letter for a student who excelled academically in [course name], highlighting their strengths in critical thinking, problem-solving, and collaboration."
- "Generate a recommendation letter for a student who consistently demonstrated leadership in class discussions and group projects, with examples of their contributions."
- "Create a recommendation letter for a student applying to [specific program or school], focusing on their academic achievements, work ethic, and potential for success."



- "Write a recommendation for a student who showed significant improvement throughout the semester, emphasizing their dedication, perseverance, and progress in [subject]."
- "Develop a recommendation letter for a student who balanced academic success with extracurricular involvement, such as [clubs, sports, volunteering], highlighting time management and leadership skills."
- "Write a recommendation letter for a student who was consistently the top performer in [specific subject], excelling in tests, assignments, and participation."
- "Create a recommendation for a student who consistently exceeded expectations in your class, demonstrating advanced analytical and critical thinking skills in [specific area]."
- "Generate a recommendation letter for a student who completed a significant research project in [subject], showcasing their ability to work independently, think creatively, and contribute original ideas."
- "Write a letter for a student applying for an academic scholarship, detailing their achievements in [specific courses], intellectual curiosity, and passion for learning."
- "Provide a recommendation letter for a student who consistently turned in high-quality work and displayed a deep understanding of complex topics in [subject]."
- "Write a recommendation letter for a student who demonstrated exceptional leadership during a group project, effectively organizing the team and ensuring all voices were heard."
- "Create a recommendation letter for a student who consistently took initiative in group discussions, providing valuable insights and helping peers understand challenging material."
- "Generate a recommendation letter for a student who took on a leadership role in an extracurricular activity, such as [club or organization], showing strong organizational and motivational skills."
- "Write a recommendation for a student who acted as a mentor to their peers, providing support and guidance in [academic area or project]."
- "Provide a letter for a student who led a successful team project in [specific course], ensuring the project met all requirements while fostering collaboration and teamwork."
- "Write a recommendation letter for a student who demonstrated outstanding work ethic and perseverance, completing assignments on time despite challenges and always striving for excellence."
- "Create a recommendation letter for a student who consistently went above and beyond in [course], showing initiative, dedication, and a commitment to improving their skills."
- "Generate a letter for a student who overcame significant personal or academic challenges to achieve success, showcasing their resilience and determination."
- "Write a recommendation for a student who worked diligently to improve their grades and skills in [specific subject], seeking out extra help and resources to succeed."
- "Provide a recommendation letter for a student who consistently displayed a positive attitude, even when faced with difficult assignments or setbacks in [course]."



#### Research

Utilizing generative artificial intelligence tools in the research process can assist in developing tailored and relevant article suggestions, summarizing research findings to increase efficiency, and developing research questions and hypotheses. The use of AI-generated outputs cannot replace the research process of synthesizing and analyzing research. However, these tools can increase efficiency and save time during the research process.

- "Identify and summarize three peer-reviewed articles on [specific topic], focusing on how each article contributes to the current body of knowledge."
- "Develop a research question on [specific topic] and outline the steps you would take to answer it using primary and secondary sources."
- "Conduct a literature review on [specific subject], synthesizing the key arguments from at least five sources and identifying gaps in the existing research."
- "Research a historical event from multiple perspectives, analyzing how different sources interpret the causes and impact of the event."
- "Create a research proposal on [specific topic], outlining your research objectives, methodology, and the types of sources you plan to use."
- "Compare and contrast two scholarly articles on [topic], evaluating their research methods, arguments, and conclusions."
- "Analyze how current research on [specific issue] has changed over the past decade, using at least five sources to illustrate major shifts in perspectives."
- "Research a controversial topic in [discipline], then analyze the biases present in different sources. How do these biases affect the conclusions drawn by the authors?"
- "Find two conflicting studies on [topic] and critically analyze the reasons for their different findings, focusing on the methodology, sample size, or research focus."
- "Research how technological advancements have influenced [specific industry or field], and evaluate the sources to determine the accuracy of their claims."
- "Conduct research on a key historical figure from [specific period], exploring how their actions influenced major events of their time. Use at least three primary and two secondary sources."
- "Investigate the causes of [specific historical event], drawing on primary sources like letters, government documents, and newspaper articles from that period."
- "Research the impact of [specific social movement] on modern policy or societal changes. How has historical research contributed to our understanding of this movement?"
- "Analyze the evolution of [specific issue, e.g., civil rights, labor laws] through different historical eras. Use historical documents to support your analysis."
- "Research a lesser-known historical event or figure from [specific era], explaining how this event or person influenced broader historical trends."
- "Investigate how recent advances in [specific technology or scientific discovery] have impacted the field of [related field]. What are the potential long-term effects?"



- "Research a scientific controversy in [specific field, e.g., climate change, genetics], analyzing the evidence presented by both sides and evaluating the validity of each argument."
- "Conduct research on a new or emerging technology in [STEM field] and explore its potential applications and ethical implications."
- "Analyze how research on [specific disease or medical condition] has evolved over the past 20 years. What key breakthroughs have occurred, and what challenges remain?"
- "Research the environmental impact of [specific industry or technology], and evaluate the sources for their scientific credibility and reliability."
- "Research the impact of [specific public policy] on a particular community or demographic, analyzing how different groups are affected."
- "Investigate the psychological or sociological theories behind [specific behavior or social phenomenon]. How have these theories evolved, and what research supports or challenges them?"
- "Analyze how media representations of [specific group or issue] have changed over time, using both historical and contemporary sources to support your analysis."
- "Research the relationship between socioeconomic status and [specific social issue, such as education or healthcare], evaluating the validity of the sources you use."
- "Examine the effects of globalization on [specific region or community], analyzing research that addresses economic, cultural, and political changes."
- "Research the impact of [specific economic policy] on small businesses in the United
   States. How have economists and business analysts evaluated its success or failure?"
- "Investigate how consumer behavior in [specific industry] has changed in response to technological advancements, using market research reports and scholarly articles."
- "Research the economic effects of [specific global event or crisis] on international trade, focusing on both short-term and long-term impacts."
- "Analyze the role of [specific financial institution or policy] in shaping economic trends over the past decade. What are the arguments for and against its influence?"
- "Research how corporate social responsibility (CSR) practices in [specific industry] affect company performance and consumer perception, using case studies and market analysis reports."
- "Research the influence of [specific art movement] on contemporary art, exploring how modern artists incorporate elements from this movement into their work."
- "Investigate the role of [specific literary genre] in shaping societal attitudes toward [specific social issue], using both literary analysis and historical research."
- "Analyze the evolution of [specific artistic technique or style] from its origins to its modern applications, focusing on how artists have adapted and expanded upon it."
- "Research the impact of [specific historical event] on literature, music, or visual arts, and analyze how artists and writers responded to this event in their work."
- "Explore the cultural significance of [specific piece of literature, artwork, or music], researching its historical context, themes, and influence on later works."
- "Research the effectiveness of [specific teaching method] in improving student outcomes in [specific subject or grade level], using educational studies and reports to support your findings."



- "Analyze the role of technology in education by researching how online learning platforms have impacted student engagement and success in [specific subject]."
- "Investigate how research on learning disabilities has influenced educational policies and classroom practices in [specific area of education]."
- "Examine how culturally responsive teaching strategies affect student performance in diverse classrooms, using educational research to support your analysis."
- "Research the evolution of assessment methods in [specific discipline], comparing traditional assessment strategies with more modern, research-based approaches."

# **Meeting Minutes**

Utilizing generative artificial intelligence tools to assist in meeting summarization, developing clear action items, and reducing the administrative burden of required reporting. Again, the use of generative artificial intelligence output without review should be avoided to ensure accuracy and correct formatting.

- "Summarize the key discussion points, decisions made, and action items assigned during a faculty meeting about [specific topic, e.g., curriculum updates, scheduling changes]."
- "Write meeting minutes for a department meeting, including the main agenda items, who was present, and any tasks assigned to faculty members."
- "Generate meeting minutes for a planning session on [specific event or project], capturing the goals, timelines, and responsibilities assigned."
- "Summarize the discussion and key takeaways from a meeting about [specific policy change], including any votes taken and next steps."
- "Create minutes for a faculty meeting discussing new technology adoption, highlighting the pros and cons discussed, final decisions, and implementation plans."
- "Document the minutes for a curriculum committee meeting, capturing the discussion on course revisions, approval of new courses, and assigned follow-up tasks."
- "Write meeting minutes for a student success committee, summarizing the strategies discussed to improve retention and any action items for committee members."
- "Generate minutes for a faculty hiring committee meeting, summarizing candidate evaluations, interview scheduling decisions, and next steps in the hiring process."
- "Summarize the meeting minutes for a professional development committee, including decisions on upcoming workshops, budget allocations, and member responsibilities."
- "Create minutes for a diversity and inclusion committee meeting, capturing key discussions on initiatives, proposed events, and timelines for implementation."
- "Write meeting minutes for a project planning session, summarizing the project's objectives, timelines, roles assigned, and any potential obstacles discussed."
- "Generate minutes for a progress update meeting on [specific project], capturing the current status, tasks completed, and any adjustments to the original plan."
- "Summarize the key points from a meeting on the development of a new academic program, including deadlines, tasks assigned, and decisions made."



- "Create meeting minutes for a team check-in on an ongoing initiative, documenting progress made, challenges encountered, and next steps for each team member."
- "Write minutes for a follow-up meeting about an event planning process, detailing what tasks have been completed, what remains, and any changes to responsibilities."
- "Write minutes for a strategic planning meeting focused on long-term department goals, capturing the key initiatives discussed and action items for each faculty member."
- "Generate minutes for a goal-setting meeting aimed at improving student engagement, summarizing proposed strategies and the responsibilities assigned to team members."
- "Summarize the minutes for a strategic meeting on enhancing community partnerships, including key discussions on potential collaborations and next steps."
- "Create minutes for a meeting where faculty set short- and long-term goals for increasing online course offerings, detailing the action plan and responsibilities."
- "Document the minutes for a meeting on improving student services, summarizing the goals set, metrics for success, and responsibilities assigned to each department."
- "Write minutes for a faculty meeting focused on professional development, summarizing the workshops discussed, key takeaways, and any action items for attendees."
- "Generate minutes for a training session on using new technology in the classroom, capturing the key points covered and any follow-up tasks for faculty."
- "Summarize the meeting minutes for a session on improving online teaching methods, including discussions on best practices, challenges faced, and next steps."
- "Create minutes for a professional development planning session, highlighting the upcoming training opportunities, decisions made about participation, and responsibilities assigned."
- "Document the minutes for a faculty development meeting, capturing the discussion on new pedagogical strategies and the implementation timeline."
- "Generate meeting minutes for an emergency faculty meeting about [specific crisis, e.g., COVID-19 response], summarizing decisions on course delivery, student support, and campus operations."
- "Write minutes for a crisis management meeting, documenting the key points discussed about [specific emergency] and any immediate actions assigned."
- "Summarize the meeting minutes for an urgent meeting on [specific incident], capturing the response plan, tasks assigned, and communication strategy decided upon."
- "Create minutes for an emergency planning meeting, outlining the procedures discussed for handling [specific crisis, e.g., natural disaster, campus security threat], and responsibilities assigned to faculty and staff."
- "Document the minutes for a follow-up crisis meeting, summarizing updates on the situation, further actions required, and next steps for communication with students."
- "Write minutes for a course evaluation meeting, summarizing faculty feedback, student input, and any proposed changes to the course structure."
- "Generate minutes for a meeting reviewing the success of a recent event or program, highlighting the key metrics discussed, successes, and areas for improvement."
- "Summarize the minutes for a meeting on faculty performance reviews, documenting the evaluation criteria discussed and any recommendations for improvement."



- "Create minutes for a program review meeting, summarizing the assessment of student outcomes, faculty feedback, and any revisions proposed."
- "Document the minutes for a meeting reviewing the effectiveness of [specific policy], including feedback from faculty, and next steps for revision or implementation."

### **Time Management**

Generative artificial intelligence tools can be beneficial in assisting in the general time management needs of faculty, particularly in our fast-paced environment. While there are a variety of tools and applications to streamline and enhance productivity, the following prompts can be used to assist in task automation, generating meeting agendas and summaries, assisting in task prioritization, and developing better work habits.

- "Generate a daily schedule that balances class preparation, grading, meetings, and personal time, ensuring that urgent tasks are prioritized."
- "Create a weekly plan for managing teaching, research, and administrative duties, breaking down each day by key tasks and allocating time blocks for focused work."
- "Provide strategies for handling unexpected interruptions (e.g., student issues, administrative requests) while maintaining progress on long-term projects."
- "Suggest techniques for prioritizing tasks when faced with multiple deadlines, ensuring that both short-term and long-term goals are addressed."
- "Develop a time management plan for a busy week when faculty need to prepare for classes, complete grading, attend meetings, and work on research projects."
- "Generate a system for prioritizing tasks by urgency and importance, helping faculty identify which tasks need immediate attention and which can be scheduled for later."
- "Create a task prioritization plan for a week with multiple deadlines, ensuring that each task is completed on time without overwhelming the schedule."
- "Provide suggestions for prioritizing grading, class preparation, and administrative duties during midterms or finals week, when time is especially limited."
- "Generate a plan for balancing short-term tasks (e.g., responding to student emails) with long-term projects (e.g., course development or research) in a typical week."
- "Develop a strategy for faculty to prioritize professional development opportunities alongside their regular teaching and administrative responsibilities."
- "Generate a list of time-saving strategies for preparing lesson plans, grading assignments, and organizing course materials."
- "Suggest ways to batch similar tasks (e.g., grading, email responses) to improve efficiency and reduce context switching during the workday."
- "Provide techniques for managing distractions during focused work time, such as setting boundaries for office hours or limiting email checking to specific times of the day."
- "Create a plan for using technology tools, such as project management software or automated grading systems, to streamline routine tasks and free up time."
- "Suggest strategies for setting clear, achievable goals each day, ensuring faculty stay on track with their priorities without feeling overwhelmed."



- "Create a weekly routine for lesson planning that allocates time for content research, slide preparation, and creating assignments without overloading any one day."
- "Develop a plan for breaking up grading tasks into manageable chunks, ensuring that grading for large classes is completed efficiently without sacrificing feedback quality."
- "Suggest ways to streamline the grading process, such as using rubrics, automated feedback tools, or peer review, to save time while maintaining fairness and consistency."
- "Provide tips for efficiently preparing for multiple classes in a single day, balancing content review, lecture preparation, and interactive activities."
- "Generate a plan for grading and providing feedback on student assignments in a timely manner, ensuring that students receive constructive input without overwhelming the faculty's schedule."
- "Develop a time management plan for balancing research and teaching responsibilities, allocating specific days or times for research-focused work."
- "Create a weekly schedule for faculty pursuing research projects, ensuring that research tasks are balanced with class preparation and grading."
- "Suggest strategies for incorporating research into a busy teaching schedule, such as setting aside dedicated blocks of time for reading, writing, or data analysis."
- "Provide tips for faculty to balance writing and publishing research papers with their regular teaching and administrative duties."
- "Generate a time management plan for faculty who are working on research grants or proposals, ensuring that research progress does not interfere with teaching quality."
- "Provide strategies for managing meeting-heavy weeks, ensuring that necessary tasks like grading and class preparation are still completed on time."
- "Generate a plan for handling administrative tasks (e.g., responding to emails, attending committee meetings) while ensuring that core teaching responsibilities are prioritized."
- "Create a strategy for minimizing time spent in meetings, such as setting clear agendas, timeboxing discussions, or delegating tasks where appropriate."
- "Suggest ways to manage email overload, including techniques for sorting and responding to emails efficiently without taking up too much time."
- "Provide a time management plan for balancing committee responsibilities with teaching and research, ensuring that administrative duties do not overwhelm the schedule."
- "Develop a time management plan that ensures faculty can balance work responsibilities with personal time, reducing the risk of burnout."
- "Create a daily routine that includes time for self-care, exercise, and relaxation, alongside teaching, grading, and administrative duties."
- "Suggest strategies for setting clear work boundaries, such as designated office hours or 'off' times when work emails are not checked, to improve work-life balance."
- "Provide tips for managing stress and avoiding overworking during busy times, such as finals week or when juggling multiple deadlines."
- "Generate a plan for maintaining work-life balance during the academic year, including strategies for time off, vacations, or personal projects."
- "Create a long-term plan for completing major projects (e.g., writing a book, developing a new course), breaking the project into manageable steps and setting realistic deadlines."



- "Generate a semester-long time management plan for balancing teaching, grading, research, and professional development."
- "Develop a timeline for faculty preparing for a sabbatical or research leave, ensuring that all teaching, grading, and administrative tasks are completed in advance."
- "Suggest strategies for setting long-term professional development goals (e.g., learning new technology, attending conferences), and balancing them with everyday tasks."
- "Create a time management plan for managing the end of the semester, including grading final assignments, meeting with students, and preparing for the next term."
- "Provide suggestions for delegating tasks to teaching assistants or colleagues to reduce workload while maintaining quality in teaching and administrative tasks."
- "Develop a strategy for collaborating with colleagues on shared projects or research, ensuring that time spent in collaboration is productive and aligned with individual schedules."
- "Suggest ways to streamline group work and committee tasks by clearly assigning roles, setting deadlines, and using collaborative tools effectively."
- "Create a plan for delegating grading tasks, where appropriate, to ensure timely feedback for students while reducing faculty workload."
- "Generate tips for improving efficiency in collaborative tasks, such as co-teaching or organizing department events, while balancing individual workloads."

## **Ethical Considerations**

While generative artificial intelligence is an important and effective tool for many use cases, there must also be a recognition of possible ethical considerations with the tool itself and its usage.

#### **Bias**

Generative AI systems can perpetuate and amplify existing societal biases, as the datasets these Large Language Models used for training included these biases. These issues can include gender bias, racial bias, cultural bias, socioeconomic bias, and others. These biases typically appear specifically in image or video generation, as much of the cultural and historical biases are most prevalent in visual representation.

Bias can be addressed in a variety of ways by faculty, including:

- Critical evaluation, before use and as part of learning scenarios, is used to discuss and discover potential biases.
- Insuring diverse language is incorporated into the prompt writing for the specific tasks to ensure equitable representation in the model's output.
- Use Al-generated sources with human-curated sources to diversify perspectives and ensure equitable representation.



 Teach bias awareness and elevate critical thinking components of evaluation in the learning environment so that bias is not dismissed or ignored in using Al-generated materials.

### Copyright

Significant copyright and intellectual property concerns need to be addressed in the use and prevalence of generative artificial intelligence. These issues include the use of copyrighted materials in the training datasets without permission from the copyright holders, not including attributions to copyright or intellectual property holders, and the inappropriate use of copyrighted materials outside of the fair use doctrine. There is also consideration of the ownership of Al-generated content, as this is often unclear. It is currently understood that the ownership of Al-generated content is to the user who prompted the output, though this may change as more legal guidelines are pursued.

These concerns can be addressed by faculty by:

- Developing and communicating clear policies on the use of AI tools in coursework
- Examining the application of the fair use doctrine to Al-generated content
- Requiring proper attribution of AI tool usage, according to the citation standards used

### **Digitial Literacy and Academic Honesty**

Of all the ethical considerations of generative artificial intelligence, the issues regarding digital literacy and academic honesty are paramount to education. There are inherent challenges to the use of generative artificial intelligence, including an overreliance on AI, the possibility of misinformation or "hallucinations" in AI-generated responses, and the unethical use of generative artificial intelligence to generate, submit, and receive credit for assignments where the use of artificial intelligence is not indicated.

To complicate an already complex issue, the use of Al-detection software, such as Turnitin's Originality Score, can not be recommended as reliable. These detection softwares currently are unable to accurately determine if content is Al-generated above a fifty percent accuracy rate—which is an ineffective and inequitable rate for consideration in student success. Thus, it is paramount that educators focus on developing digital literacy skills and adapting curriculum to appropriate usage of generative artificial intelligence.

To assist in this effort, faculty can:

- Integrate and incorporate artificial intelligence in appropriate ways in their discipline and curriculum, with consideration on when in a student's learning journey it would be effective to introduce
- Focus on the development of critical thinking and evaluation skills, particularly in light of Al-generated content



- Revisit academic honesty and integrity policies to address the ethical uses of artificial intelligence, prioritizing appropriate use cases and creating an environment where transparent disclosure of AI-usage is acceptable
- Elevate assessment and assignment practices that require AI-resistant skills or where AI
  is incorporated into the assessment or assignment

### Resources

- Addressing AI Hallucinations and Bias
- <u>Al for Education Resources</u>
- Al Key Term Glossary
- Bias in Generative Al
- ChatGPT Cheat Sheet
- ChatGPT Quick Guide for Faculty
- Educause: A Generative Al Primer
- Generative Artificial Intelligence Cornell
- Generative AI Cheat Sheet
- Generative Al for Educators Google
- Generative AI for Teaching and Learning MIT
- Generative AI in Teaching and Learning UVA
- Introduction to the Use of Generative AI Tools in Teaching Oxford
- Prompt Engineering Cheat Sheet
- Prompt Framework for Educators
- Prompting Tone Guide
- Open Al's Introduction to GPT
- Reducing Biased and Harmful Outcomes in Generative Al
- Teaching with Generative AI NYU
- The Other Side of AI: ChatGPT Explains Its Downsides