scientific writing, it may be more advantageous for students to do this without the aid of tools so that they fully learn the process. However, if a learning outcome is to produce a report about a scientific topic for the public, it may be advantageous to allow students to use generative AI to help develop arguments, so that they can critically evaluate many counterarguments in light of their own ideas and understand how these tools may help them (or not). Allowing students to engage with generative AI when appropriate helps students to ultimately develop a deeper understanding of the tools, and recognize the value of their own added human expertise.

Below is a list of ideas for how generative AI tools may be used throughout the writing process. Draw from these ideas freely, as they align with your own class and learning outcomes.

- Ask generative AI tools to brainstorm ideas with you, where it may push on and expand your existing ideasss an
- Ask generative AI tools to give you counterarguments to your existing thesis (this can highlight weak spots in an argument that a student may have missed)
- Ask generative AI tools to produce an initial outline for your argument, and critically analyze the degree to which it meets your goals
- Ask generative AI tools for a sample of the type of document you are producing (e.g., "Write a brief technical report on an experiment"), in order to learn the standard rhetorical moves of a genre

- Paste your own text into generative AI tools and ask for feedback on the draft (note: initial studies have found that students often find this initially helpful and comparable to peer feedback, but that over time it becomes less insightful1)
- Ask generative AI tools to give you suggestions on how to make your draft more concise
- Ask generative AI

suspect a student has used generative AI inappropriately, refer to Illinois Tech's Guideline on Academic Honesty and Generative AI.

For more information and resources on teaching and research with generative AI at Illinois Tech, please see Illinois Tech's Guideline on Academic Honesty and Generative AI, as well as the following faculty guides: Teaching and Generative AI, and Sources, Research, and Generative AI.