Guide to writing useful AI (ChatGPT) prompts and questions



The following information is intended to provide you with guidance in the appropriate use of large language model (LLM), artificial intelligence (AI) chatbots, such as ChatGPT and Bard.

Just like using the University Library online search or Google Scholar as tools to help you understand a given topic, AI chatbots can also be used to help aid in your learning.

The information returned from AI chatbots will depend on the questions and prompts that you type in. And just like any information returned from any online resource, it is your responsibility to ensure that it accurate and can be verified.

It is also very important to recognise that the inappropriate use of AI tools and systems will constitute academic misconduct. More information can be found in section 3.6 of the University's <u>Academic Misconduct Policy</u>.

Ways to interact with ChatGPT/AI tools?

AI/ChatGPT Resources

More help and guidance on the use of AI tools within your studies can be found in our <u>Student IT Guides</u> section.

Click the link above or scan the QR below to access these guides.



There are several different ways in which you can interact with AI chatbot tools, but unlike general search engines, these tools work best if you ask questions or give prompts, rather than just typing in keywords.

Asking questions

The easiest way to get started with an AI chatbot tool is to ask it a question. For example, asking '**What is chaos theory?**' will result in a structured response that has been generated from the tools knowledge database.

Although it is possible to ask search engines the same question, they will interpret and treat the question as search words rather than an actual question and the response will be what we would expect from a search engine^{*}. The different ways in which you can ask questions is explored further in the next section.

AN	what is chaos theory?			
\$	Chaos theory is a branch of mathematics and a field of study in physics that deals with complex and unpredictable systems. It focuses on the behavior of dynamic systems that are highly sensitive to initial conditions. The theory was developed in the 1960s and 1970s by mathematicians and physicists such as Edward Lorenz, Benoit Mandelbrot, and Robert May. At its core, chaos theory explores the notion that small changes in the initial conditions of a	Ĺ	۵	Ţ
	system can lead to vastly different outcomes over time. This sensitivity to initial conditions is often referred to as the "butterfly effect," as even the flapping of a butterfly's wings could potentially influence the path and behavior of a chaotic system.			

Figure 1 - Example of asking ChatGPT a simple question such as ' What is chaos theory?'

* Microsoft's newest version of their Bing search engine now incorporates ChatGPT functionality meaning the current difference between these two tools will become less.

Pasting in text as source material

As well as asking questions for the AI tool to interpret you can also provide a passage of source material and ask questions based on that.

For example, you may be struggling to understand a passage from your module resources or reading list. Instead of asking a question about the passage you can instead paste that into AI tool and then ask it to explain it in a more simplified way, or even in a different language.

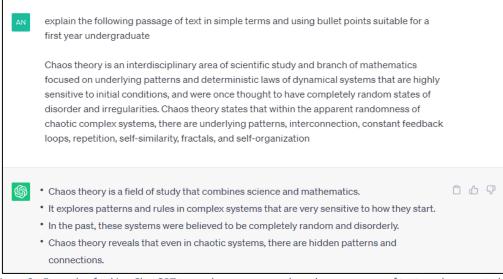


Figure 2 - Example of asking ChatGPT to produce a response based on a passage of text you have pasted in.

Example prompts and questions

The following example prompts and questions build on the examples given above and have been categorised into areas relating to your higher education studies. In these examples no specific topic or subject will be used and instead replaced with the likes of [insert topic].

Simplify a topic or subject

If you're exploring a new subject and you're finding the explanation provided doesn't make sense, you can ask ChatGPT to explain it to you in a more simplified and broken-down way.

- Provide a simplified explanation of [insert topic]."
- "Summarise the main parts of [insert topic]."
- "Break down the [insert topic] into smaller, easier-to-understand parts."
- "I want to learn about [insert topic], use analogies and real-life examples to simplify the concept and make it more relatable."

Structuring a report or essay

If you are unsure how to structure a report or essay, you can ask ChatGPT to provide a basic structure that you can use to build on. When using this approach, you need to be careful not to use AI/ChatGPT to write the report or essay for you.

- "Help me create a structure for an undergraduate level essay in [insert subject]."
- "What are the main sections in a [insert subject] related summary report?"
- "How do I present my findings of research I've conducted in [insert topic]?"

Critical thinking and analysis

Critical thinking and analysis are an important study skill required when studying at university. To help you form your own judgment on a topic, you can us an AI chatbot tool to help you gather available facts, evidence, observations, and arguments*.

- "How do we know [inset topic] to be true?"
- Please clarify for me the current ideas and research on [insert topic]."
- "Let's think about the [above passage] from a reserve perspective."
- "How has the process of [insert topic] changed over the past decade?"
- "You are a [insert person/profession], how would you solve the problem of [insert topic]?"

* Critical thinking and analysis should be unbiased, please refer to the drawbacks of ChatGPT and AI tools document (linked at the bottom of this guide), which covers the 'Bias' limitation of these tools.

Time and task management

Managing your time when attending university can be challenging. You can ask ChatGPT to help you manage your time and create a schedule to ensure that you don't miss your deadlines.

- "I am a second year undergraduate student. What time management techniques can you suggest to help me manage my time?"
- "I have three university assignments due to be submitted in 12 weeks' time. Can you suggest a plan to help me manage my time?"
- "I have the following university level assignments due to be submitted at the stated times. A poster presentation due in [insert date], a 2000 word essay due in [insert date] and a 1000 business case due [insert date]. I also have a part-time job working a 3 hour shift four evenings a week. Help me schedule my time this semester so that I don't miss my deadlines."

Important points to remember

It is important to remember the following points when working with AI tools in the context of your studies and the assignments you have been asked to complete. These will help you both for your own cyber safety, but also in terms of maintaining academic integrity.

- 1. **Do not submit any work which is identifiable** i.e., you cannot be identified, nor can anyone else be identified.
- 2. Do not submit any sensitive pieces of work, particularly do not include any confidential pieces of work!
- 3. Do not submit any work which contains any personal data.
- 4. Do not submit your entire assessment.
- 5. **Do not ask ChatGPT to rewrite your work for you,** ensure you're only using it for advice and guidance.

The drawbacks of using ChatGPT and AI tools

It is important to remember that the use of AI tools brings with it several drawbacks, especially when used within an academic environment. From fake references to hallucinations and biased outputs, a cautious approach to using these tools is always advised.

More information is available in the following document - <u>The drawbacks of using ChatGPT</u> and <u>AI</u>.

