# Generative AI at Royal Roads University: Learning, Teaching, and Student Research

Generative Artificial Intelligence (Generative AI, AI) describes algorithms and technologies that can be used to produce new content, such as text, audio, code, images, simulations, and videos. The algorithms that power Generative AI are oftentimes called Large Language Models (LLMs), and the terms LLM and Generative AI are sometimes used as synonyms. We refer to this technology as Generative AI. Generative AI differs from prior technological advances in that it evolves on its own with use.

## Statement of Principle

It is in this context that RRU embraces the following statement of principle for Generative AI in learning, research, and teaching:

Generative AI has the potential to impact our world rapidly and fundamentally. It has already presented opportunities and challenges.

Consistent with our Learning, Teaching and Research Model, we take the social constructivist perspective that learning takes place through interactions with others and our world. In keeping with our vision to empower people with the courage to change the world, we see a future where Generative AI can be harnessed through our interactions with it to make positive change.

We assume that students will behave ethically and comply with the University Policy on Academic Integrity and Misconduct - Students. We focus on empowering students to not only learn effective and ethical use of Generative AI, but also to excel in an environment where Generative AI will play a prominent and integral role. We do this aligned with the principles of transparency, fairness and accountability in a culture centred on shared learning.

Generative AI by its nature does not lend itself to a singular approach and its ability to evolve will require us to continually review and respond as we all move toward new ways of learning, teaching, research, and assessment.

## Expectations

**Students** may use Generative AI compliant with the direction of their course instructor or supervisor and the University Policy on Academic Integrity and Misconduct - Students. Where they are unsure of the interpretation of the use of Generative AI in any course, students should inquire with their instructor, supervisor, or Program Head. Use of Generative AI for research must be declared in the request for ethical review of research submitted to the Research Ethics Board (REB) and approved before use in research.

**School Directors, Program Heads and other academic leaders** are encouraged to consider

whether a common approach to the use of Generative AI is appropriate to the learning outcomes of a program or group of programs and communicate expectations for consistent application of these where they have been determined.

Changes to course learning outcomes that seek to reflect the application of Generative AI must follow normal course revision process including approval by Curriculum Committee.

**Instructors** may determine how Generative AI is used in a course they are currently teaching, compliant with university policy and any emergent direction provided by their Program Head, School Director, Dean, or the Vice-President, Academic & Provost.

- Instructors may adjust assignments, assignment production processes, and submission requirements to support student learning and the principles of academic integrity in keeping with the learning outcomes of the course. Acceptable student uses of Generative AI should not impact the ability of students to demonstrate their achievement of the course learning outcomes.

- Instructors may use Generative AI in a learning environment where students are not required to share personal information. Students cannot be required to use any tool for which they must share personal information through account creation or any other means unless a privacy impact assessment has been conducted and the tool approved for use by the university. Instructional designers can advise on whether any educational technology is appropriate for use in a course.

- Any suspicion of Generative AI misconduct should be adhere to the University's [Academic Integrity and Misconduct Procedures.](#)

**Research supervisors** are expected to support students with aligning their research activities with those approved by the REB.

- Research supervisors are required to ensure that students declare any potential use of Generative AI in their intended research on the ethical review of research form before submitting the form to the REB.

- As the research proceeds, research supervisors are reminded that as with any form of academic misconduct, any suspicion of Generative AI misconduct should be adhere to the University's [Academic Integrity and Misconduct Procedures](#).

## Guidance for Students

**Maintain your academic integrity**

- Royal Roads University follows an educational approach set out in our Learning, Teaching and Research Model. This Model highlights learning that is applied and authentic, caring and community-based, and transformational. To maintain these principles, we expect all members of the university community to uphold recognized standards of academic integrity, demonstrating a personal commitment to truth.

- You are responsible for ensuring the academic integrity of your work, and advances in Generative AI technologies do not alter this accountability. Familiarize yourself with the [University Policy on Academic Integrity and Misconduct - Students](#).

- AI-generated text is not yet considered reliable since it has been demonstrated to include fabricated content that might at first glance seem credible. It is important to engage critically with Generative AI tools and products, just as you would with all sources.

- If you use a Generative AI tool for any work you submit, include a transparency statement on how, why, and which Generative AI software was used. This is an example of a transparency statement for a team submission, based on a model proposed by the Western Canadian Deans of Graduate Studies Working Group (2023):

  *This [work] was created through a synergy between human skills and AI algorithms. Specifically, [Generative AI tool] was used to find relevant material and suggest high-level categories for analysis. The final document was comprehensively reviewed and edited by our team. Each element was written by our team, with copy-editing and phrasing help through Grammarly. The use of AI in this manner is consistent with the guidelines and recommendations provided to us by our instructor.*

**Protect your privacy and intellectual property, and the privacy of others**

- Know the risks, as well as the benefits of using Generative AI tools and make an informed decision before you use each one. Understand the risks you might take in providing your personal information to any service. You should also familiarize yourself with the risk to sharing content that might impact our intellectual property or copyright.

- Practice good digital citizenship: Generative AI technologies can gather and retrieve data and record transcripts of conversations. Do not use Generative AI tools in a group setting unless you have the consent of all present. This includes 'inviting' Generative AI into an online forum or meeting to generate a transcript or summary.

- Do not share, upload, or otherwise input the private or unpublished work of others into any Generative AI tool without consent.

- If you intend to use Generative AI tools in your research, you must ensure that participants have given free, informed, and ongoing consent. Your consent documents must tell participants how you intend to incorporate Generative AI in your research process, and you must inform them that their data will be added to the tool's open-source database. Anything submitted to a Generative AI tool must be fully anonymous, without any personal identifiers. Be always mindful of participant protection and anonymity, even if they have given consent.

**Ask if you are not sure**

- If you have any questions about using Generative AI in your coursework, course assignments, research, or other academic activities, ask your instructor or supervisor.

- Looking for help with knowing how to cite generative AI in your work? Please refer to [Citing ChatGPT in APA Style](link) in our [ChatGPT LibGuide](link), and if you have any additional questions, [contact the Writing Centre](link).

- More information can be found in the UNESCO document [ChatGPT and Artificial Intelligence in Higher Education: Quick Start Guide](link).

# Guidance for Instructors:

**State expectations of AI use in course outlines and reinforce them**

- Course outlines should provide clear expectations on the acceptable use of Generative AI in activities and assessments, within the bounds of the [University Policy on Academic Integrity and Misconduct - Students.](link) Examples of statements that can be used or adapted can be found in the Appendix.

- Engage with students in conversations at the beginning of the course or research project as to the appropriate and ethical use of Generative AI in the course or research. This includes discussions around the use of Generative AI in group settings (for example, inviting AI to record and summarize online meetings).

**Consider your course assessment practices**

- Examine current course assessments through the lens of the availability of Generative AI tools.

- Continue to implement experiential and authentic learning activities and assessments as envisioned in the Learning, Teaching and Research Model that can enrich learning and increase the probability that the work students produce will be authentically theirs. These can include live cases, field trips, service learning, project-based learning, and others.

- Consider the use of formative assessments such as iterative writing assignments that take a stepped approach can also provide opportunities to give meaningful feedback to students throughout the critical thinking and writing process. For example, students might be asked to submit a topic statement, then an outline, then a draft and finally their completed written work.

- Incorporate oral assignments and assessments. Let students know in your course outline that you may choose to interview them about one or more course assignment to provide another way for students to demonstrate their understanding = this can be done as a learning activity, and/or an additional assessment activity.

**Consider adding submission requirements**

- Consider requiring students to complete an AI Usage Statement for any or all assignments, communicating this expectation at the outset of the course. Students may be asked to include a statement describing if and how they have used Generative AI. This statement should provide information about the tools or resources they utilized during their research and writing process. If a student did not use AI at all, they should make that clear in their statement. The University of Melbourne offers a [template and examples](#) that can be provided to students.

- Ask students to turn on "Track Changes" and utilize version history when working on assignments. This feature is available in both Microsoft Word and Google Docs. It will allow students to demonstrate the complete development of their papers, showing the progression of their work as a learning tool and to document where Generative AI has been used as described in an AI Usage Statement.

**Guidance for Research Supervisors:**

- Research supervisors should check with the Program Head to determine whether there are program-specific expectations around the use of Generative AI.

- Engage with students in conversations at the beginning of the research project as to the appropriate and ethical use of Generative AI in the course or research. This includes discussions around the use of Generative AI in group settings (for example, inviting AI to record and summarize online meetings).

## Additional information for Instructors and Research Supervisors:

**Do not use AI detection technologies**

- Instructors and Research supervisors should not rely on AI detection tools to determine whether students have used Generative AI in their work without permission or acknowledgement. These tools are not currently reliable (Sadasivan, et al., 2023) and are not sanctioned by the university for use with student work.

- It is important to note that submitting a student's work to a Generative AI tool without their consent violates their right to their original work and may inadvertently compromise any research ethics clearance provided.

**Reach out**

Connect with your [CTET liaison](#) to discuss strategies for integrating Generative AI using constructive alignment, for reducing its impact on their course assessments, or exploring its broader role in education-related initiatives.

Find resources or success stories shared by other educators online. Here are some to get you started:

- School of Graduate Studies, University of Toronto - [Guidance on the Appropriate Use of Generative Artificial Intelligence in Graduate Theses](#)

- The University of Aberdeen - [Guidance for Staff on the Use of Generative Artificial Intelligence Tools in Education](#)

- University of British Columbia - [AI in Teaching and Learning](#)

- UNC Chapel Hill Provost & Chief Academic Officer - [Generative AI Usage Guidance for the Research Community](#)

- UNESCO - [ChatGPT and Artificial Intelligence in Higher Education: Quick Start Guide.](#)

- University of Edinburgh - [Generative AI for Writing and Assessment](#) [video]

- University of Victoria - [Scholarly Use of A.I. Tools](#)

- Camosun College - [Artificial Intelligence in Teaching & Learning](#)

- Kwantlen Polytechnic University - [Generative AI Portal](#)

- University of Waterloo - [ChatGPT and Generative Artificial Intelligence (AI): Generative AI Resource List](#)

- University of Waterloo Writing and Communication Centre - [Using ChatGPT and other Text-Generating Artificial Intelligence (GenAI)](#)

# References

Sadasivan, V. S., Kumar, A., Balasubramanian, S., Wang, W., & Feizi, S. (2023). *Can AI-generated text be reliably detected?* Cornell University. https://doi.org/10.48550/arXiv.2303.11156

Western Canadian Deans of Graduate Studies Working Group. (2023). Recommended practices on the use of generative AI in graduate and post-doctoral research. http://wcdgs.ca/reports-resources.html

# Appendix

Sample excerpts suitable for use in course outlines

## Instructions

This is a two-part exercise to help you construct an appropriate statement of expectations for your course(s). While we know that there are unique situations for the use (or restriction of use) of generative technologies, the examples below have been divided into three different levels according to their restrictiveness. These are offered as a starting point intended to cover many of the circumstances we encounter at the University.

It is important that your course outline (syllabus) contains clear expectations for the acceptable use of Generative AI for students. This is not a one-size-fits-all approach. Feel free to select an appropriate pre-written passage below, and modify it to clearly define your own expectations for how students may use (or not use) generative AI in your course*.

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### Part A: Suggested text for *all* courses

*We recommend this text for use in all courses, to establish a common understanding and core University expectations. Follow this text with program (or faculty) expectations from part B.*

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Generative AI and the technologies behind it are continually evolving. This provides both opportunities and challenges not only in education, but in how we create and represent our work in the world. While we expect generative technologies to continue to improve over time, there are certain concerns to be aware of. Generative technology tends to invent false statements yet presents them as if they are fact. There are also unanswered ethical and privacy issues surrounding the data that is used to train such models in the first place. Users must take responsibility for finding ways to employ AI technology in a safe, factual, and ethical manner.

**Academic Integrity:** As a learning community, Royal Roads University follows an educational approach as set out in our Learning, Teaching and Research Model. This model highlights learning that is applied and authentic, caring and community-based, and transformational. To maintain these principles, we expect all members of the university community to uphold recognized standards of academic integrity, demonstrating a personal commitment to truth and our shared values. Students remain responsible for ensuring the academic integrity of their work, and advances in generative AI technologies do not alter this accountability.

Please see Royal Roads University Policy on Academic Integrity and Misconduct

**Part B: Some suggested text for the use of generative AI in *your* course**

*Select and/or modify any of the text below to align with your specific course expectations. Reach out to CTET if you would like assistance creating an AI statement for your specific circumstances:*

**Example 1: Quite restrictive**

Academic integrity is a crucial aspect of the learning process and a cornerstone in both formative and summative assessments. All submissions for this course must be original and comply with the university's academic regulations. Any unattributed use of material, whether sourced from other individuals or generative technologies (such as chatGPT), is considered misconduct. It is inappropriate to present AI-generated content as one's own.

All student submissions in this course must be entirely self-authored, without the use or assistance of generative AI such as ChatGPT. By submitting your assignment for evaluation, you are asserting that the work is entirely your own, and all statements of fact have been verified and attributed using accepted academic citation methods.

***Alternate second paragraph:***

Students must seek permission before incorporating any generative or AI technologies like chatGPT into their work. Any work generated using such technologies must be appropriately cited, mirroring the citation practices for human-generated contributions. If generative technologies are used, the results may not constitute more than 25% of the total work submitted, including audio or visual content (images or videos).

**Example 2: Usage allowed with conditions**

When you submit an assignment for evaluation, you are confirming several key points:

- The information presented must accurately reflect verified facts, especially when sourced from generative AI resources. Remember, generative AI tends to invent statements that are not true.

- Proper attribution is required for all sources beyond common knowledge, which refers to information that a knowledgeable reader can understand without external verification. Generative AI must be cited appropriately, the same as more traditional sources.

- You must adhere to the specific requirements outlined for your assigned work, including transparency and documentation of the process, making clear where (and how) generative technologies were used.

Failure to uphold any of these confirmations, whether intentional or due to negligence, constitutes a violation of your commitment to truth and may lead to academic misconduct.

**Example 3: Liberal usage allowed with citation**

In this class, you have the freedom to use generative AI (such as ChatGPT, GPT, DALL-E, Stable Diffusion, Midjourney, GitHub Copilot, and any subsequent models) without restrictions or penalties. However, it's crucial to be aware that large language models may generate incorrect facts and fake citations, code generation models can produce inaccurate outputs, and image generation models may occasionally create offensive content. You will be held accountable for any inaccuracies, biases, offensiveness, or unethical content in your submissions, whether it originates from you or a foundation model. If you utilize a foundation model, you must acknowledge its contribution, and failure to do so will be considered academic misconduct. Despite these considerations, the use of generative AI may be beneficial, and can be used to enhance your learning, and as a result, the quality and efficiency of your assignments.

It is important to note that the university's policies on plagiarism and academic misconduct apply to any uncited or improperly cited use of work from other sources, whether human or computer-generated, as well as the submission of work, whether human or computer-generated, as your own.

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