

Policy Regarding the Use of Memory Aids

What is a Memory Aid?

A memory aid is an accommodation designed to allow students with certain disabilities to retrieve information from memory that they have already learned but have difficulty accessing without the use of cues.

A memory aid does not have specific course material on it, but rather cues or triggers such as rhymes, acrostics, or diagrams. Without a solid understanding of course material gained through previous study, a memory aid will be of little use to a student. In addition, the cues or triggers will be so separate from course material that the memory aid would not help anyone but the student who created it.

Who Gets a Memory Aid?

Memory aids are approved for students who have a documented medical condition or learning disability that causes a significant memory deficit, even with appropriate study.

The Accommodation Office will only recommend a memory aid when disability-related documentation:

- Clearly outlines the functional impact on memory
- Describes the memory assessment performed
- Shows that other strategies to support memory are not sufficient
- Because of the complexity and potential impact on academic outcomes, the Accommodations Office may request an additional third-party review of documentation before approving this accommodation.

For memory aids to be considered, testing must meet the six criteria outlined in “Memory Aids as a Disability-Related Accommodation?”¹ They are summarised as follows:

Criterion 1: Objective evidence demonstrating the validity of memory test scores. That is, there must be objective evidence that the memory complaints are credible.

Criterion 2: The recommendation should be based on scores from measures of memory rather than working memory. Low scores on measures of working memory or short-term memory are not sufficient evidence to support the need for a memory aid accommodation.

¹ Allyson G. Harrison, Alana Holmes, and Bethany Pollock, “Memory Aids as a Disability-Related Accommodation? Let’s Remember to Recommend Them Appropriately”, *Canadian Journal of School Psychology* Vol. 36: 3 (2021): 255-272.

Criterion 3: Evidence that actual learning took place. Memory tests must explicitly inform the student that later recall will be required, controlling for lapses in attention during the learning phase.

Criterion 4: The assessor must consider the profile of memory scores to demonstrate a true “retrieval deficit”. The clinician must control for the initial amount learned and demonstrate impaired free recall and significantly improved delayed recall with the use of cues.

Criterion 5: Confirmation that cues significantly enhance recall beyond what is observed in same age peers.

Criterion 6: Clinical reports must be clear in stating that the recommended memory aids may not be appropriate in every course and that instructors have the final say regarding whether the accommodation is appropriate for the course.

Testing that will be considered appropriate are as follows:

- The California Verbal Learning Test -II -3 (Delis et. al., 2000, 2017).
- Delayed recall scores from the Wide Range Assessment of Memory and Learning (WRAML-2; Sheslow & Adams, 2003).
- The Learning and Memory Battery (LAMB; Schmidt & Tombaugh, 1995).
- The Wechsler Memory Scale IV (WMS-IV; Weschler, 2009), with the score calculated and interpreted.
- The Memory module of the Neuropsychological Assessment Battery (NAB; White & Stern, 2003).
- The Test of Memory and Learning-2 (TOMAL-2); Reynolds & Voress, 2007).

Testing can be completed through the Regional Assessment and Resource Centre at Queen’s University (<https://www.queensu.ca/rarc/>).

Human Rights and Fairness

The purpose of any accommodation is equity, not advantage. Accommodations must remove disability-related barriers without compromising essential learning outcomes.

An essential requirement is that which cannot be adapted without compromising the basic objective of the task.

If demonstrating memorization is a core learning outcome, then memory aids may not be appropriate.

Academic Integrity and Essential Course Requirements

When course content or specific information is an essential learning objective, it cannot appear on a memory aid.

Example:

- If the outcome is to know and reproduce a formula → the formula cannot be included
- If the outcome is to apply a formula → the formula may be permitted on a formula sheet, not a trigger sheet

Although the Accommodations Office may recommend a memory aid, the professor or department chair determines whether using a memory aid affects the integrity of a test or exam. If memorization is a fundamental course objective, the accommodation may be disallowed.

Memory Aid Specifics

A trigger sheet...

- is a single-sided 8.5" × 11" page
- has a white background and no content in margins
- may be handwritten/drawn or typed (12-point font)
- must be clearly legible
- may include cues such as images, diagrams, mind maps, acronyms, rhymes, or other personal triggers
- should make sense only to the student who created it

A trigger sheet does not...

- cover all course information
- include complete terms, definitions, worked examples, or essential course knowledge
- include formulas (these belong on a formula sheet if approved)
- provide answers

Process of Creating and Approving a Memory Aid

Accommodations Office Responsibilities

- Review disability-related documentation to determine whether a memory aid is the most appropriate accommodation.
- Disburse the Memory Aid Toolkit and instruct students to watch this video: <https://youtu.be/tCuVvnR1dh4?si=4UbENjyM2ac2GrM5>.
- Communicate with instructors as needed to:

- Clarify essential requirements
- Problem-solve challenges
- Provide sample memory aids
- Address questions or concerns

Student Responsibilities

1. Be registered with the Accommodations Office in the current semester.
2. Be approved for a memory aid accommodation. Training will be provided at approval.
3. Request the memory aid (trigger sheet and/or formula sheet) **each semester** by emailing the Accommodations Office.
4. Confirm with each instructor whether a memory aid is permitted in the course.
5. Confirm any **authorized aids** allowed for all students in the course.
6. Create a **draft memory aid** and submit it to the instructor for review **at least 7 business days before the exam**.
7. Revise the memory aid as requested until the instructor approves it.
8. Email the **approved memory aid** to the professor **at least 3 business days before the test**. CC the Accommodations Office. Screenshots will not be accepted.
9. Repeat this process for **every** test and exam.
10. You will need to book a private room and a proctor for the writing of your exam. This must be approved **at least three business days before the test**.
11. The approved memory aid will be given to you by the proctor with the exam when you write the exam.

Important:

- If the memory aid is not submitted on time, it will not be allowed for that exam.
- If an instructor does not approve the memory aid, it cannot be used. Students should notify the Accommodations Office for assistance with resolving the issue.

Instructor Responsibilities

When the instructor receives the accommodations plan that outlines a student's approved accommodations, they should reach out to the Accommodations Office if they have any concerns about the use of a memory aid in their course.

Approval should be based on **essential requirements and learning outcomes**.

The instructor may:

- **Approve** the trigger sheet as submitted.
- **Request edits** to remove content that compromises academic integrity and ask the student to resubmit.
- **Disallow** the memory aid if the cues or formulas on the sheet represent essential knowledge or skills required in the course.

The instructor should notify both the student and Accommodations Office of any concerns and, where time allows, permit the student to submit a revised version. Instructors are **not responsible** for correcting content errors on memory aids.

After the exam, instructors should verify that the trigger sheet or formula sheet submitted with the exam matches the version previously approved.

Proctor Responsibilities

- Receive memory aids and examination via email from the professor (no screenshots) **at least 3 business days before the exam**.
- Print and include the memory aid in the exam envelope for student use.
- Ensure that the student is using only the preapproved memory aid that came from the instructor.
- Ensure that the student is not using any other resource except those that are approved for all students' use.
- Include the memory aid with the final copy of the exam if a paper copy of the exam is being used. If the exam is online, return the paper copy of the memory aid to the instructor by itself.

Timeline

- At the beginning of the semester, the student verifies with the Accommodations Office that memory aids are listed as part of the accommodations.
- At the beginning of the semester, the student discusses with each professor whether or not memory aids are permitted in the course.
- At least **seven business days** (does not include weekends) before exam, student submits memory aids via attachment to an email to professor. Any request for the exam to be written at a different time or for additional time should be made at the same time.

- Within days seven-four before the exam, the professor checks and approves or requests amendments made to memory aids.
- Once approved, the professor forwards the memory aid to the dean.
- At least **three business days** (does not include weekends) before the exam, student books a private room and submits paperwork to the dean for an approved proctor/scribe.
- The day before the exam, the dean will email a copy of the exam and the memory aid to the proctor.
- At the exam, the student receives from the proctor a copy of the exam and the memory aid. The student must not bring anything into the exam room other than whatever tools the rest of the class is permitted to bring.

At the completion of the exam, if the exam is online, the proctor retains the memory aid and returns it to the mailbox of the professor for shredding. If the exam is paper, the proctor includes the exam and the memory aid in a sealed envelope and returns it to the mailbox of the professor.