



PSYCH 390-002 – Research in Memory Winter 2022

Class Time: Mondays & Wednesdays, 1pm–2:20pm (EST)
Location: HH 1102 and PAS 1237



Instructors: Ryan Yeung (rcyeung@uwaterloo.ca) & Brady Roberts (brady.roberts@uwaterloo.ca)

Ryan's Office Hours: <https://calendly.com/rcyeung/30min>

Office: PAS 4227 / online via Teams

Brady's Office Hours: by appointment

Office: PAS 4227 / online via Teams

Teaching Assistant: Sophia Tran (sophia.tran1@uwaterloo.ca)

Sophia's Office Hours: by appointment

Office: PAS 4244 / online via Teams

Required Course Text

- Baddeley, A., Eysenck, M.W., & Anderson, M.C. (2020). *Memory*. 3rd edition. Routledge, ISBN 9781138326095
- The 2nd edition is also fine content-wise, but chapter numbers are based on the 3rd edition.
- A single, physical course reserve textbook is available to freely access at the Dana Porter library and is able to be checked out for one day at a time.
(<https://www.reserves.uwaterloo.ca/ares/ares.dll?Action=10&Form=50&Value=172662>)
- We also have a course reserve e-book version of the textbook available through the library that allows for 3 concurrent users and is also able to be checked out for one day at a time.
(<https://www.reserves.uwaterloo.ca/ares/ares.dll?Action=10&Form=50&Value=174718>)

Course Description

Questions to be addressed include: How is information encoded and retrieved? What types of memory exist? How can we measure these forms of memory? Why does forgetting occur? What biological changes accompany memory loss? Can memory impairments be rehabilitated?

There is also a lab component to this course. The goal of the lab component is to introduce students to OpenSesame software, which is often used to collect data for research studies. The goal for these labs is to give you a hands-on opportunity to understand the basic methods in current memory research.

Several major themes in the area of memory research are explored in this course. Historically influential ideas, current theoretical debates, and the application of cognitive, social, neuroimaging, & neuropsychological approaches to the study of memory are reviewed and discussed.

Course Structure and Requirements

By the end of the course, you will have a detailed knowledge of a wide range of memory phenomena and a solid foundation from which to pursue more advanced study. The introduction to

OpenSesame will familiarize you with how experiments are set up, and the variables that can be manipulated. Attendance at lectures and in labs is essential. Group presentations are designed to promote discussion of relevant ideas and concepts. The poster session is designed to introduce you to how research results are communicated at scientific conferences and meetings.

Overview of Assessments

Lab Worksheets	6 × 4% and 1 × 6% =	30%
Midterm Test	[Wednesday, March 2nd in HH 1102]	30%
Group Presentation		17%
Participation in Discussions (following presentations)		3%
Poster Presentation	[Wednesday, March 30th in PAS 1237]	10%
Poster Introduction Write-Up	Due: Monday, April 4th	10%

Details for Assessments

Lab Worksheets (30%)

The goal of the lab component is to introduce you to OpenSesame software, which is free software that can be used to collect data for research studies. All lab activities and worksheets will be provided on Learn and will be completed during the scheduled lab time. The worksheets for Labs 1–6 are worth 4% each, and the worksheet for Lab 7 is worth 6% (**total = 30% of your grade**).

Midterm Test (30%)

The midterm test is worth **30% of your grade** and will consist of multiple-choice, short answer questions, and longer essay questions. The midterm will be based on material covered in lectures and in the relevant chapters in your course textbook. The test will be written in-person, by hand, is 1 hour and 20 minutes in length, and will take place during class time. The midterm is closed book (no outside materials allowed). The midterm will be on **Wednesday, March 2, 2022 in HH 1102**.

If we are not on campus by March 2, 2022, please see below (Shift-To-Online and Shift-To-On-Campus Policy) for how the midterm will proceed (i.e., as an open-book take-home test).

Group Presentation (17%)

In March, groups of students will be presenting each week. For each of the listed topics and associated dates, groups (of 2 students each, depending on the class size) will prepare a **15-minute PowerPoint presentation (or other slide presentation program of your choosing)**. **Each student will be responsible for creating and presenting half of the content**. Presentations will be given live to the class **during our Monday or Wednesday timeslot, in-person**. Groups will submit their slides to a dropbox on Learn, due 11:59pm the night before the presentation. Slides that are submitted to the dropbox will be posted on Learn the day of the presentation. This **presentation is worth 17%** of your grade in the course.

Following each presentation, there will be 5 minutes for questions and comments from classmates. Here, students in the audience can make suggestions for extensions on the topic, note future real-world applications, and/or offer presentation style feedback.

Specific Requirements for the Group Presentation:

First, read the relevant chapter. Each student will present on separate subsections within the assigned chapter. Your presentation does not need to exhaustively cover all content in your assigned chapter, but you should pick subsections that contain enough content to present on. The following requirements should be split evenly between group members.

- (1) Each person will review *one* subsection (concepts and associated methods of assessment/measurement) covered in the assigned chapter.
- (2) Each group will highlight some overarching conclusions and take-home messages based on both the reviewed subsections of memory research.
- (3) One person will review and explain how a related study from a recent peer-reviewed journal article (published from 2015-present) extends either subsection of the topics or the chapter content more holistically if you prefer).
- (4) One person will suggest a future extension for either subsection topic (or the chapter content more holistically if you prefer), in terms of a future psychology experiment *OR* an application of the concept to address a real-world issue.

Poster Presentation (10%)

Each student will prepare a scientific poster of a suggested study that they have conceived and designed, including hypotheses, predicted results, and a discussion of implications. A poster is a one-slide summary of the Background, Methods, Results, and Conclusions of an empirical study. This is the format used in academia to communicate research findings at scientific conferences and meetings. A poster serves as an executive summary of a study, allowing others to quickly understand the research question that was investigated and the results that were found. A few sample posters will be posted to Learn for your reference; we encourage using these for inspiration.

On March 30th, we will have a **Poster Day**. Each student will tell classmates about their poster in a brief oral presentation (3 minutes max), and then answer questions from the audience for 2 minutes. Students must submit their poster **in PDF format** to a dropbox on Learn, **due 11:59pm the night before the presentation day**. Posters that are submitted to the dropbox will be posted to Learn on the day of the presentation. This **presentation is worth 10%** of your grade in the course. Be sure to acknowledge all sources of information and avoid plagiarism.

You will be marked on:

- (1) the clarity and brevity of the written content on your poster,
- (2) the ability to base the study idea in past literature (*why* it's a good idea to run the study),
- (3) the appropriateness and clarity of your graphs/tables/figures, and
- (4) the ability to verbally communicate your hypothesized results, and what those results would imply for related theories and/or our understanding of memory.

Poster Introduction Write-Up (10%)

Prepare a separate, more detailed Introduction section to accompany your poster. You must discuss the current state of knowledge relating to your topic and explain the rationale for your research idea using relevant past research. Include an overview of the proposed cognitive/neural mechanism for your effect of interest. Highlight what is not yet known about your topic (e.g., whether

there is debate regarding the cognitive or neural mechanism). The last paragraph of this assignment should include a brief outline of your proposed study's method and hypothesized results. This assignment is due after the poster presentation so that students can incorporate any feedback they are provided on their study idea.

Submissions can be up to 4 pages in length, must be double-spaced, plus an additional reference page(s). Writing should be in 12-point Times New Roman font, with 2.54 cm margins all around. Content after 4 pages will not be graded. Students will submit their paper to a dropbox on Learn, **due 11:59pm on April 4th, 2022**.

Participation (3%)

Participation during the question periods (as an audience member) of the group and poster presentations **is worth 3% of your grade**. Quality will be valued over quantity; having thoughtful, considerate questions/comments is an important skill to develop. That is, you do not need to participate after every presentation, but when you do participate it should be thoughtful. **Please note that we can make adjustments to grades if you are not feeling well and therefore cannot make it into class to participate; we want to prioritize safety over grades. Do not come if you are feeling sick.**

Who to Contact About Course Material

Contact your teaching assistant if you have questions about the grading of labs, midterms, and poster introduction write-ups. Contact the course instructors for questions about course content or grading of presentations.

Course Web Page and Online Content

LEARN is a web-based course management system that enables instructors to manage course materials and interact easily and efficiently with their students. **Lecture slides will be posted online as PDFs before each class**, along with this course syllabus. Course announcements, grades, and group/poster presentations will also be posted. Log on using your Quest/UW user ID and password.

COVID-19 Safety Recommendations

If you or someone you know are displaying symptoms of COVID-19, we recommend that you do not attend lectures or labs (no matter how mild symptoms may be). We will work with you to ensure an equitable class experience if you cannot make it on to campus, and no grades will be lost as a result of this. Our recommendation also applies to students who do not feel comfortable visiting campus due to concerns about COVID-19, even if they themselves are entirely asymptomatic.

Shift-To-Online and Shift-To-On-Campus Policy

The University of Waterloo has announced that classes will be conducted online from January 5, 2022 until at least January 27, 2022. During this period, all sessions of this course will be conducted online on the officially scheduled days and times. A Microsoft Teams meeting link along with login instructions will be posted on the official LEARN site for this course. Students are strongly

encouraged to attend these sessions live. The online sessions will be recorded and passed on to students who are unable to attend the synchronous sessions due to technical issues or other extenuating circumstances. Everything else in the course remains as-is. Meaning, the course is already designed to be transferable to online learning. We will provide necessary instructions and updates via LEARN as we go. In this online situation, presentations will be given via Microsoft Teams, and labs will be completed on students' personal computers or by connecting to on-campus computers through the University VPN. Note that if we are still doing online learning at the time of the midterm, **the midterm will change to an asynchronous, take-home format with an open-book policy.**

In the event that we shift from online lectures and labs back to in-person learning, everything will remain as-is in the syllabus except that we will start meeting in-person in the specified rooms. If a student has extenuating circumstances for why they cannot shift to in-person learning later in the term, please contact the instructors and we will discuss it on a case-by-case basis. Please note that some adjustments to the dates of particular lecture topics and/or activities may need to be made in order to provide flexibility during the transition to the in-person format. If any such adjustments need to be made then students will be notified as soon as possible. If after in-person classes resume there is a need for a longer-term cancellation of in-person classes, then the course will shift back to online class sessions as described above.

If poster or group presentations are held online & synchronously, **students may receive participation marks** either **synchronously** (asking/answering questions live via videoconferencing, including the chat) or **asynchronously** (discussion boards on Learn).

Late Submission Policy

It is each student's responsibility to hand in late assignments or posters directly to the relevant **dropbox (or to submit the quiz in the case of lab worksheets)**. We have set up Learn to allow submissions at any time, but the website will flag those that are considered late. Late submissions will be subject to a **penalty of -5% of the assigned grade per day** (i.e., the assignment is late as of 12:00am the day after the deadline), including weekends. An amnesty period of 15 minutes will be allowed to account for computer/Internet issues that can occur when submitting documents to the dropbox, but these will require an email explanation to accompany the late submission. If you predict that you may be even later due to extenuating circumstances, reach out to the TA or instructors ahead of time if at all possible.

Each student has 3 '**grace days**' in total, to be used as you please throughout the term. When a grace day is used, no late penalty is applied to those days, no questions asked. These apply for the following assignments: lab worksheets, poster introduction write-up, and the midterm (*only if it is the take-home version*). For example, a student could be one day late submitting three different lab worksheets, or be three days late submitting their poster introduction write-up and in both cases receive no penalty. Grace days are used up automatically when an assignment is submitted late; if you would like them applied in a specific way, email the instructors. The following assignments are **not** eligible for grace days: any presentations (group or poster), and the midterm (if it is written in-person).

Please note that late penalties do not apply (and grace days are not used up) when a student is sick or has a family emergency that requires taking time off.

Topic	Instructor	Lecture / Lab Number and Location	Readings and Assignments	Date
Syllabus / Course Web Page Introduction to Memory Concepts	Brady	Lecture 1 (Online meeting on Microsoft Teams)	Syllabus	Wednesday, Jan 5 th
Introduction to Memory Research	Ryan	Lecture 2 (Online meeting on Microsoft Teams)	Baddeley et al., Chapter 1	Monday, Jan 10 th
Measuring the Brain	Brady	Lecture 3 (Online meeting on Microsoft Teams)	Baddeley et al., Chapter 2	Wednesday, Jan 12 th
Kinds of Memory	Ryan	Lecture 4 (Online meeting on Microsoft Teams)	Baddeley et al., Chapter 3	Monday, Jan 17 th
Introduction to OpenSesame	Brady	Lab 1	Lab 1 Course Notes	Wednesday, Jan 19 th

		(Online meeting on Microsoft Teams)	Wammes et al., 2016 Select Presentation Topic (you have one week to choose via Form)	
Working Memory	Ryan	Lecture 5 (Online meeting on Microsoft Teams)	Baddeley et al., Chapter 4	Monday, Jan 24 th
Recall	Ryan	Lab 2 (Online meeting on Microsoft Teams)	Lab 2 Course Notes Announce presentation dates and topics	Wednesday, Jan 26 th
Learning	Brady	Lecture 6 (HH 1102)	Baddeley et al., Chapter 5	Monday, Jan 31 st
Recognition	Brady	Lab 3 (PAS 1237)	Lab 3 Course Notes	Wednesday, Feb 2 nd
Episodic Memory	Brady	Lecture 7 (HH 1102)	Baddeley et al., Chapter 6	Monday, Feb 7 th
Making Modifications	Ryan	Lab 4 (PAS 1237)	Lab 4 Course Notes	Wednesday, Feb 9 th
Memory Retrieval	Ryan	Lecture 8 (HH 1102)	Baddeley et al., Chapter 8	Monday, Feb 14 th

Debugging	Brady	Lab 5 (PAS 1237)	Lab 5 Course Notes	Wednesday, Feb 16 th
Reading Week			Reading Week - No Class	Monday, Feb 21 st
Reading Week			Reading Week - No Class	Wednesday, Feb 23 rd
Memory, Aging, & Dementia	Brady	Lecture 9 (HH 1102)	Baddeley et al., Chapter 15	Monday, Feb 28 th
Midterm	Both	HH 1102	Midterm	Wednesday, March 2 nd
Careers in Cognitive Neuroscience	Ryan	Lecture 10 (HH 1102)		Monday, March 7 th
Tips for In-Class Presentations			Preparation for In-Class Presentations	
Group Presentations				
Topic 1: Improving Your Memory			Baddeley et al., Chapter 17	
Data Collection	Brady	Lab 6 (PAS 1237)	Lab 6 Course Notes	Wednesday, March 9 th

<p>Group Presentations</p> <p>Topic 2: Incidental Forgetting</p> <p>Academic Writing Workshop (15 minutes)</p>	Both	Presentations (HH 1102)	Baddeley et al., Chapter 9	Monday, March 14 th
Data Wrangling & Analysis	Ryan	Lab 7 (PAS 1237)	Lab 7 Course Notes	Wednesday, March 16 th
<p>Group Presentations</p> <p>Topic 3: Motivated Forgetting</p> <p>Topic 4: Autobiographical Memory</p> <p>Topic 5: Eyewitness Memory</p>	Ryan	Presentations (HH 1102)	<p>Baddeley et al., Chapter 10</p> <p>Baddeley et al., Chapter 11</p> <p>Baddeley et al., Chapter 12</p>	Monday, March 21 st

<p>Group Presentations</p> <p>Topic 6: Prospective Memory</p> <p>Topic 7: Memory in Childhood</p> <p>Topic 8: When Memory Fails</p>	<p>Brady</p>	<p>Presentations (HH 1102)</p>	<p>Baddeley et al., Chapter 13</p> <p>Baddeley et al., Chapter 14</p> <p>Baddeley et al., Chapter 16</p>	<p>Wednesday, March 23rd</p>
<p>Group Presentations</p> <p>Topic 9: Semantic Memory</p> <p>Academia Workshop/Panel (45 minutes)</p>	<p>Ryan</p>	<p>Presentations (HH 1102)</p>	<p>Baddeley et al., Chapter 7</p>	<p>Monday, March 28th</p>
<p>Poster Day</p>	<p>Both</p>	<p>Presentations (PAS 1237)</p>	<p>Present your research proposal, results, & discussion to the class!</p>	<p>Wednesday, March 30th</p>

<p>Hot Topics in Cognitive Neuroscience</p> <p>Poster Introduction Write-Up Due Date</p>	<p>Ryan</p>	<p>Lecture 11 (HH 1102)</p>	<p>Link to sample conference programs on Learn:</p> <ul style="list-style-type: none"> - Canadian Society for Brain Behaviour & Cognitive Science - Psychonomic Society - Cognitive Neuroscience Society <p>Course Feedback</p>	<p>Monday, April 4th</p>
--	-------------	-----------------------------	--	-------------------------------------

Course Materials List

There are 2 purchase options available for the required textbook: one digital and one physical format. Please choose only 1 of the 2 options below for the required textbook:

Option 1: (Digital)

Title : Memory 3rd ed

Author: Baddeley et al

ISBN : 9780429831294

Price : \$43.83-81.95 (180 days – lifetime access available)

To order the access code and receive it instantly, please follow the first link below. You will need a major credit card to complete the purchase.

Link:

<https://uwaterloo-store.vitalsource.com/products/memory-alan-baddeley-michael-w-v9780429831294?term=9781138326095>

Option 2: (Paperback)

Title : Memory 3rd ed

Author: Baddeley et al

ISBN : 9781138326095

Price : \$83.95

The printed book can be ordered online from wstore.ca. You can login to UWaterloo BookLook, using your UWaterloo email and password, to view your personalized booklist and add items directly to your shopping cart. A common list of online questions, such as shipping rates and returns, can be found on our website at wstore.ca/help. If you need assistance with your online order, please email wstore@uwaterloo.ca. A member of our team will reach out as soon as possible.

University of Waterloo Policies

Institutional-required statements for undergraduate course outlines approved by Senate Undergraduate Council, April 14, 2009

Academic Integrity

In order to maintain a culture of academic integrity, members of the University of Waterloo are expected to promote honesty, trust, fairness, respect and responsibility. Check the Office of Academic Integrity webpage for more information.

Discipline

A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for their actions. Check the Office of Academic Integrity for more information. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline. For typical penalties check Guidelines for the Assessment of Penalties.

Concerns about a Course Policy or Decision

Informal Stage. We in the Psychology Department take great pride in the high quality of our program and our instructors. Though infrequent, we know that students occasionally find themselves in situations of conflict with their instructors over course policies or grade assessments. If such a conflict arises, the Associate Chair for Undergraduate Affairs (Richard Eibach) is available for consultation and to mediate a resolution between the student and instructor: Email: reibach@uwaterloo.ca; Ph 519-888-4567 ext. 38790

Grievance

A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70 - Student Petitions and Grievances, Section 4. When in doubt, please be certain to contact Richard Eibach, the Associate Chair for Undergraduate Affairs who will provide further assistance; reibach@uwaterloo.ca.

Appeals

A decision made or penalty imposed under Policy 70 - Student Petitions and Grievances (other than a petition) or Policy 71 - Student Discipline may be appealed if there is a ground. A student who believes they have a ground for an appeal should refer to Policy 72 - Student Appeals.

Note for Students with Disabilities

The AccessAbility Services office, located on the first floor of the Needles Hall extension (NH 1401), collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the AS office at the beginning of each academic term.

Cross-listed Course (if applicable)

Please note that a cross-listed course will count in all respective averages no matter under which rubric it has been taken. For example, a PHIL/PSCI cross-list will count in a Philosophy major average, even if the course was taken under the Political Science rubric.

Accommodation for course requirements for Psychology courses.

Policies of the Psychology department pertaining to course requirements are available on the department website.

Mental Health Support

All of us need a support system. The faculty and staff in Arts encourage students to seek out mental health support if they are needed.

On-Campus

Due to COVID-19 and campus closures, services are available only online or by phone.

- Counselling Services: counselling.services@uwaterloo.ca / 519-888-4567 ext. 32655
- MATES: one-to-one peer support program offered by the Waterloo Undergraduate Student Association (WUSA) and Counselling Services

Off-campus, 24/7

- Good2Talk: Free confidential helpline for post-secondary students. Phone: 1-866-925-5454
- Grand River Hospital: Emergency care for mental health crisis. Phone: 519-749-4300 ext. 6880
- Here 24/7: Mental Health and Crisis Service Team. Phone: 1-844-437-3247
- OK2BME: set of support services for lesbian, gay, bisexual, transgender or questioning teens in Waterloo. Phone: 519-884-0000 extension 213

Full details can be found online on the Faculty of Arts website.

Academic freedom at the University of Waterloo

Policy 33, Ethical Behaviour states, as one of its general principles (Section 1), “The University supports academic freedom for all members of the University community. Academic freedom carries with it the duty to use that freedom in a manner consistent with the scholarly obligation to base teaching and research on an honest and ethical quest for knowledge. In the context of this policy, 'academic freedom' refers to academic activities, including teaching and scholarship, as is articulated in the principles set out in the Memorandum of Agreement between the FAUW and the University of Waterloo, 1998 (Article 6). The academic environment which fosters free debate may from time to time include the presentation or discussion of unpopular opinions or controversial material. Such material shall be dealt with as openly, respectfully and sensitively as possible.” This definition is repeated in Policies 70 and 71, and in the Memorandum of Agreement, Section 6.

Sona Participation and Research Experience Marks

Information and Guidelines

Experiential learning is considered an integral part of the undergraduate program in Psychology. Research participation is one example of this, article review is another. A number of undergraduate courses have been expanded to include opportunities for Psychology students to earn grades while gaining research experience.

Since experiential learning is highly valued in the Department of Psychology, students may earn a bonus grade of up to 4% in this course through research experience. Course work will make up 100%

of the final mark and a **bonus of up to 4%** may be earned and will be added to the final grade if/as needed to bring your final grade up to 100%.

The two options for earning research experience grades; participation in research through online and remotely operated (replacing in-lab) studies, and article review; are described below. Students may complete any combination of these options to earn research experience grades.

Option 1: Participation in Psychology Research

Research participation is coordinated by the Research Experiences Group (REG). Psychology students may volunteer as research participants in remotely operated (replaces in-lab) and/or online (web-based) studies conducted by students and faculty in the Department of Psychology.

Participation enables students to learn first-hand about psychology research and related concepts. Many students report that participation in research is both an educational and interesting experience. Please be assured that all Psychology studies have been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee.

How to earn extra marks for your Psychology course(s) this term by participating in studies:

- You will earn "credits" which will be converted to "marks" (1 credit = 1%)
- You can schedule your remotely operated (replacing in-lab) and ONLINE studies using the "Sona" website.
- **FOR THE WINTER 2022 TERM ALL OF YOUR CREDITS** can be earned through ONLINE AND REMOTELY/ONLINE OPERATED (replacing in-lab) studies. This could change as advice on in lab studies progresses.

Educational focus of participation in research

To maximize the educational benefits of participating in research, students will receive feedback information following their participation in each study detailing the following elements:

- Purpose or objectives of the study
- Dependent and independent variables
- Expected results
- References for at least two related research articles
- Provisions to ensure confidentiality of data
- Contact information of the researcher should the student have further questions about the study
- Contact information for the Director of the Office of Research Ethics should the student wish to learn more about the general ethical issues surrounding research with human participants, or specific questions or concerns about the study in which they participated.

Participation in remotely operated (replaces in-lab) studies has increment values of 0.5 participation credits (grade percentage points) for each 30-minutes of participation. Participation in ONLINE studies is worth .25 credits for each 15-minutes of participation. Researchers will record students' participation and at the end of the term, the REG Coordinator will provide the course instructor with a credit report of the total credits earned by each student.

How to participate?

Study scheduling, participation and grade assignment is managed using the SONA online system. All students enrolled in this course have been set up with a SONA account. You must get started early in the term. For instructions on how to log in to your SONA account and for a list of important dates and deadlines please, as soon as possible, go to:

[Participating/SONA information: How to log in to Sona and sign up for studies](#)

**** Please do not ask the Course Instructor or REG Coordinator for information unless you have first thoroughly read the information provided on this website.****

More information about the REG program in general is available at:

[Sona Information on the REG Participants website](#) or you can check the [Sona FAQ on the REG website homepage](#) for additional information.

Option 2: Article Review as an alternative to participation in research

Students are not required to participate in research, and not all students wish to do so. As an alternative, students may opt to gain research experience by writing short reviews (1½ to 2 pages) of research articles relevant to the course. The course instructor will specify a suitable source of articles for this course (i.e., scientific journals, newspapers, magazines, other printed media). You must contact your TA to get approval for the article you have chosen before writing the review. Each review article counts as one percentage point. To receive credit, you must follow specific guidelines. The article review must:

- Be submitted before the last day of lectures. Late submissions will NOT be accepted under ANY circumstances.
- Be typed
- Fully identify the title, author(s), source and date of the article. A copy of the article must be attached.

- Identify the psychological concepts in the article and indicate the pages in the textbook that are applicable. Critically evaluate the application or treatment of those concepts in the article. If inappropriate or incorrect, identify the error and its implications for the validity of the article. You may find, for example, misleading headings, faulty research procedures, alternative explanations that are ignored, failures to distinguish factual findings from opinions, faulty statements of cause-effect relations, errors in reasoning, etc. Provide examples whenever possible.
- Clearly evaluate the application or treatment of those concepts in the article.
- Keep a copy of your review in the unlikely event we misplace the original.