

**Neuropsychological Rehabilitation (PSYC33H3)**  
University of Toronto, Scarborough  
Winter 2022

Course Director: Dr. Brandon Vasquez

Email: [bvasquez@baycrest.org](mailto:bvasquez@baycrest.org) (office: 416 785-2500 x2764)

Office Hours: Thursdays at 12 pm via Zoom (Meeting ID: 944 7154 1351; Passcode: 522485)

<https://zoom.us/j/94471541351?pwd=WEhMMWRkR3k5L2VZcHVmdGEzdDVLdz09>

Teaching Assistant: Jacob Koudys

E-mail: [jacob.koudys@mail.utoronto.ca](mailto:jacob.koudys@mail.utoronto.ca)

**Course Website:** [Quercus](#)

**Class Time and Location:** Thursdays 9:00 am – 11:00 am; MW262

**Objective:** Interventions in the field of Neuropsychological Rehabilitation are discussed against a backdrop of evidence-based practice, relevant neuropsychological and psychological theory and research. The course examines interventions across the most frequently impaired cognitive domains including memory (mild cognitive impairment, and acquired brain injury), attention/executive function (acquired brain injury/traumatic brain injury, concussion), visuospatial/perceptual, and behaviour-management (dementia). Other relevant topics in neuropsychological rehabilitation are also covered including program evaluation, neuroplasticity, and the increasing role of assistive technology.

**Evaluation:**

	<b>Due dates</b>	<b>Content</b>	<b>Grade weight (%)</b>
Midterm exam	February 17	Lectures and required readings	30%
Proposal presentation	March 17/24	Brief (10 min) presentation about paper topic	10%
Peer feedback	March 21/28	Written feedback on peer presentations	5%
Research paper	April 7	Academic paper detailing the design and evaluation of an intervention for a neuropsychological deficit. This can be a case or group study from topics covered.	25%
Final exam	TBD	ALL lectures and readings (weighted to the second half of the course)	30%

**Exam Format:** Midterm and final examinations will include multiple choice and short answer questions. Information from lectures and readings will be tested on both midterm and final exams. The final exam is cumulative with emphasis on material covered since the midterm.

**Proposal Presentation & Peer Feedback:** You will present your idea for your research paper to the class in a short PowerPoint presentation. The main goal is to enable the opportunity for feedback and/or guidance (see assignment instructions for details). You will also be asked to provide written feedback on the presentations given by your peers.

**Research Paper:** This assignment will be in the form of a grant proposal, which in many ways is similar to a journal article, but prior to actually running a study and having data to discuss. The purpose of writing a paper in the style of a grant proposal is to deepen your knowledge of a particular area of neuropsychological rehabilitation, apply what you have learned from the course in designing an intervention, and give greater thought to the implications of applied research in this field. (see assignment instructions for further details).

<b>Week</b>	<b>Topic/Module</b>	<b>Required Readings</b>
Jan 13	1. Neuroplasticity & Introduction to Neuropsychological Rehabilitation	<b>Wilson</b> (2008). Neuropsychological rehabilitation. <b>Cramer</b> (2011). Harnessing neuroplasticity for clinical applications.
Jan 20	2. Evidenced-based Treatment & Program Evaluation	<b>Cicerone</b> (2019). Evidence-based cognitive rehabilitation: Systematic review of the literature from 2009 through 2014. <b>Perdices</b> (2009). Single-subject designs as a tool for evidence-based clinical practice: Are they unrecognized and undervalued?
Jan 27	3. Psychotherapeutic Intervention (PCS & ABI)	<b>Ruff</b> (2013). Selecting the appropriate therapies for individuals with traumatic brain injury: What works and what does not? <b>Bergersen</b> (2017). A systematic literature review of psychotherapeutic treatment of prolonged symptoms after mild traumatic brain injury.
Feb 3	4. Memory Intervention – Mild (Older Adults, MCI)	<b>Giebel</b> (2015). Translating cognitive and everyday activity deficits into cognitive interventions in mild dementia and mild cognitive impairment. <b>Murphy</b> (2018). Multicomponent approaches to secondary prevention of dementia.
Feb 10	5. Memory Intervention – Moderate to Severe Memory Impairment	<b>Svoboda</b> (2012). PDA and smartphone use by individuals with moderate-to-severe memory impairment: application of a theory-driven training programme. <b>Evans</b> (2014). Memory dysfunction.
<b>Feb 17</b>	<b>MIDTERM EXAM</b>	All lectures and readings to date
<b>Feb 24</b>	<b>READING WEEK</b>	
Mar 3	6. Executive Functioning Rehabilitation	<b>Turner</b> (2014). Neurorehabilitation of executive functions. <b>Stamenova</b> (2019) Effectiveness of goal management training® in improving executive functions: A meta-analysis.
Mar 10	7. Rehabilitation in Visuospatial & Perceptual Disorders	<b>Burns</b> (2004). Clinical management of agnosia. <b>Azouvi</b> (2017). Rehabilitation of unilateral neglect: Evidence-based medicine.
Mar 17	8. <b>Student Presentations</b> (Language Intervention)	<b>O’Sullivan</b> (2019). Language and language disorders: Neuroscience to clinical practice.
Mar 24	9. <b>Student Presentations</b> (Language Intervention)	<b>Doogan</b> (2018). Aphasia Recovery: When, How and Who to Treat?
Mar 31	10. Behaviour Management in Dementia	<b>Cohen-Mansfield</b> (2001). Nonpharmacologic interventions for inappropriate behaviours in dementia: A review, summary, and critique. <b>Gitlin</b> (2013). Managing behavioral symptoms in dementia using nonpharmacologic approaches: An overview.
<b>April 7</b>	11. Technology in Neuropsychological Rehabilitation  <b>PAPER DUE</b>	<b>Bier</b> (2018). Special issue on technology and neuropsychological rehabilitation: Overview and reflections on ways to conduct future studies and support clinical practice <b>Gillespie</b> (2012). Cognitive function and assistive technology for cognition: A systematic review.

## **Psychology Department Missed Term Work Policy, WINTER 2022**

For missed term work (assignments and term tests) due to illness, emergency, or other mitigating circumstances, please follow the procedures outlined below.

- The following reasons are not considered sufficient for missed term work: travel for leisure, weddings, personal commitments, work commitments, human error.
- Missed Final Exams are handled by the Registrar's Office and should be declared on eService: <http://www.utoronto.ca/registrar/missing-examination>
- Instructors cannot accept term work any later than five business days after the last day of class. Beyond this date, you would need to file a petition with the Registrar's Office: <https://www.utoronto.ca/registrar/term-work>

### **Accommodations for Illness or Emergency:**

For missed work due to ILLNESS OR EMERGENCY, complete the following **three-step** process:

1. Complete the [Request for Missed Term Work Accommodations Form](#)
2. **Declare your absence** on [ACORN](#) (Profile & Settings > Absence Declaration)
3. **Email both the Request for Missed Term Work Accommodations Form AND a screenshot of your Self-Declared Absence on ACORN** to the email address provided by your instructor on the course syllabus **WITHIN 2 BUSINESS DAYS** of the missed work.

*Note:* If you are unable to submit your documents within 2-business days, **you must still email your instructor within the 2-business day window** to explain the nature of the delay, and when you will be able to provide your documents. Exceptions to the documentation deadline will only be made under **exceptional circumstances**.

*Note:* For this semester, we do not require any additional supporting documentation (e.g. medical notes) to support your missed term work accommodation request.

### **Accommodations for Academic Conflicts:**

For missed term work due to an ACADEMIC CONFLICT (i.e. two midterms scheduled at the same time), please complete the following process:

1. Complete the [Request for Missed Term Work Accommodations Form](#), choosing "Other" and explaining the conflict in the space provided.
2. Take screenshots of your course homepages that demonstrate the conflict.
3. Email the form and screenshots to your course instructor **at least two weeks (10 business days) before the date of the activity**, or as soon as possible if it was not possible to identify the conflict earlier.

*Note:* Multiple assignments due on the same day are not considered conflicts. Accommodations may only be possible in the case of quizzes and tests that are both scheduled during the same discrete period. Back-to-back tests/quizzes are not considered conflicts.

*Note:* Students are responsible for keeping their course timetables conflict-free. Students who choose to register in two synchronous courses with overlapping lecture/tutorial/lab schedules will not be accommodated.

**Accommodations for Religious Conflicts:**

For missed term work due to a RELIGIOUS CONFLICT, please complete the following process:

1. Complete the [Request for Missed Term Work Accommodations Form](#), choosing “Other” and noting “Religious conflict” in the space provided.
2. Email the form to your course instructor **at least two weeks (10 business days) before the date of the activity**, or as soon as possible if it was not possible to identify the conflict earlier.

**Accommodations for Students Registered with AccessAbility Services:**

For missed **TERM TESTS** due to ACCESSABILITY REASONS:

- **Contact your AccessAbility consultant** and have them email your instructor detailing accommodations required.

For missed **ASSIGNMENTS** due to ACCESSABILITY REASONS:

- If your desired accommodation is **within the scope** of your Accommodation Letter (e.g. your letter includes “extensions of up to 7 days” and you need 3 days):
  1. Complete the [Request for Missed Term Work Accommodations Form](#).
  2. Email the form and your **Accommodation Letter** to your instructor, specifying how many days extension you are requesting.
- If your desired accommodation is **outside the scope** of your Accommodation Letter (e.g. your letter includes “extensions of up to 7 days” but you need more time than that):
  1. **Contact your AccessAbility consultant** and have them email your instructor detailing the accommodations required.

**Accommodation Procedure:**

After submitting your documentation, you will receive a response from your instructor or TA. This form does not guarantee that you will be accommodated. The course instructor reserves the right to decide what accommodations (if any) will be made. Failure to adhere to any aspect of this policy may result in a denial of your request for accommodation. **You are responsible for checking your official U of T email and Quercus course announcements daily**, as accommodations may be time-critical.

For missed assignments, **do not wait for an instructor response to resume work on your assignment**. Extension accommodations may be as short as one business day, depending on the nature of the illness/emergency. You should complete your assignment as soon as you are able and email it your instructor.

For an anticipated event (e.g. scheduled surgery or an illness with a prolonged recovery period), submit a [Verification of Illness Form](#) completed by your doctor, AND this form to your instructor if you would like to request accommodations in advance of the assignment deadline or midterm date. **Declare your future absence on ACORN (absences can be declared up to 14 days in the future)**.

**Missed Accommodations**

If an accommodation is granted but a continued illness/emergency prevents you from meeting the requirements of your accommodation, you must repeat the missed term work procedure to request additional accommodations. **Please make it clear in your subject line that you are requesting a second accommodation**. For example, if you are given an extension but are still sick and need more time, or if you miss a make-up midterm, you must submit another request ‘Missed Term Work Accommodations’ form and declare your extended absence on ACORN. \*\*\*Note: In the case of a missed make-up test, an opportunity to write a second make-up test may not be provided.

## AccessAbility Services

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability or health consideration that may require accommodations, please feel free to approach the instructor and/or the AccessAbility Services Office (in SW-302) as soon as possible. Your instructor will work with you and AccessAbility Services to ensure you can achieve your learning goals in this course. Enquiries are confidential. The UTSC AccessAbility Services staff members are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations.

AccessAbility Services contact information Phone: (416) 287-7560 Email: [ability@utsc.utoronto.ca](mailto:ability@utsc.utoronto.ca)

## Academic Integrity

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. Behaviours that constitute academic dishonesty and the processes for addressing academic offences are outlined in The University of Toronto's Code of Behaviour on Academic Matters: <http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>

Potential offences include, but are not limited to:

- On tests and exams: (a) Using or possessing unauthorized aids; (b) Looking at someone else's answers during an exam or test; (c) Misrepresenting your identity.
- In academic work: (a) Falsifying institutional documents or grades; (b) Falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters.

## Other Policies

### 1) Appeals Policy:

Appeals must be submitted in writing (not notes on the test). The appeals should include clear and specific details of why you feel a particular mark is incorrect and must be attached to the original test. You will be informed of a decision within one week. Appeals will not be considered without such written documentation. Note that marks on re-graded tests can be increased, decreased, or remain the same.

### 2) Email Policy:

- Each message to the instructor/TA must include PSYC33 in the subject line and include your full name and student number in the correspondence.
- Be sure to consult the course syllabus and website (including discussion board) BEFORE submitting inquiries by email.
- Whenever possible, email inquiries will be replied to within 2 days, excluding weekends. If you do not receive a reply within this period, please resubmit your email as some servers can be unreliable.

## Reading List

### **Topic 1 – Neuroplasticity and Intro to Neuropsych Rehab**

**Wilson**, B. A. (2008). Neuropsychological rehabilitation. *Annual Review in Clinical Psychology*, 4, 141–162.

**Cramer**, S. C. et al. (2011). Harnessing neuroplasticity for clinical applications. *Brain*, 134, 1591-1609.

### **Topic 2 – Evidence-Based Treatment and Program Evaluation**

**Cicerone**, K. D. et al. (2019). Evidence-based cognitive rehabilitation: Systematic review of the literature from 2009 through 2014. *Archives of Physical Medicine and Rehabilitation*, 100, 1515-33.

**Perdices**, M., & Tate, R. L. (2009). Single-subject designs as a tool for evidence-based clinical practice: Are they unrecognized and undervalued? *Neuropsychological Rehabilitation*, 19(6), 904–927.

### **Topic 3 – Psychotherapeutic Intervention**

**Ruff**, R. (2013). Selecting the appropriate therapies for individuals with traumatic brain injury: What works and what does not? *NeuroRehabilitation*, 32(4), 771-779.

**Bergersen**, K., Halvorsen, J., Tryti, E., Taylor, S., Olsen, A. (2017). A systematic literature review of psychotherapeutic treatment of prolonged symptoms after mild traumatic brain injury. *Brain Injury*, 31(3), 279-289.

### **Topic 4 – Memory Intervention - Mild**

**Giebel**, C., & Challis, D. (2015). Translating cognitive and everyday activity deficits into cognitive interventions in mild dementia and mild cognitive impairment. *International journal of geriatric psychiatry*, 30(1), 21-31.

**Murphy**, K. J. (2018). *Multicomponent approaches to secondary prevention of dementia*. APA Handbook of Dementia, Smith, G.E, Editor in Chief, APA Books: Washington (pp 471-486) doi: 10.1037/0000076-025

[will post on Quercus]

**Topic 5 – Memory Intervention – Moderate-to-Severe**

**Svoboda, E., Richards, B., Leach, L., & Mertens, V. (2012).** PDA and smartphone use by individuals with moderate-to-severe memory impairment: application of a theory-driven training programme. *Neuropsychological rehabilitation, 22*(3), 408-427.

**Evans, J.J. (2014)** Memory dysfunction. In Selzer, M., Clarke, S., Cohen, L., Kwakkel, G., & Miller, R. (eds.) *Textbook of Neural Repair and Rehabilitation*. Cambridge: Cambridge University Press, pp. 478–488. [will post on Quercus]

**Topic 6 – Executive Functioning Rehabilitation**

**Turner, G.R. & D'Esposito, M. (2014).** Neurorehabilitation of executive functions. In Selzer, M., Clarke, S., Cohen, L., Kwakkel, G., and Miller, R. (eds.) *Textbook of Neural Repair and Rehabilitation*. Cambridge: Cambridge University Press, pp. 489–499. [will post on Quercus]

**Stamenova, V. & Levine, B. (2019):** Effectiveness of goal management training® in improving executive functions: A meta-analysis. *Neuropsychological Rehabilitation, 29*(10), 1569-1599. DOI: 10.1080/09602011.2018.1438294

**Topic 7 – Rehabilitation in Visuospatial and Perceptual Disorders**

**Burns, M. S. (2004).** Clinical Management of Agnosia. *Topics in Stroke Rehabilitation, 11*(1), 1-9.

**Azouvi, P., Jacquin-Courtois, S., & Luauté, J. (2017).** Rehabilitation of unilateral neglect: Evidence-based medicine. *Annals of Physical and Rehabilitation Medicine, 60*, 191-197.

**Topic 8 – Language Intervention (part 1)**

**O'Sullivan, M., Brownsett, S., & Copland, D. (2019).** Language and language disorders: Neuroscience to clinical practice. *Practical Neurology, 19*, 380-388.

**Topic 9 – Language Intervention (part 2)**

**Doogan, C., Dignam, J., Copland, D., & Leff, A. (2018).** Aphasia Recovery: When, How and Who to Treat? *Current Neurology and Neuroscience Reports, 18*, 90.

**Topic 10 – Behavioural Management in Dementia**

**Cohen-Mansfield, J.** (2001). Nonpharmacologic interventions for inappropriate behaviours in dementia: A review, summary, and critique. *The American Journal of Geriatric Psychiatry*, 9(4), 361-381.

**Gitlin, L.N., Kales, H.C., & Lyketsos, C.G.** (2013). Managing behavioral symptoms in dementia using nonpharmacologic approaches: An overview. *JAMA*, 308(19), 2020-2029.

**Topic 11 – Technology in Neuropsychological Rehabilitation**

**Bier, N., Sablierc, J., Brianda, C., Pinarda, S., Riallee, V., Giroux, S., Pigoff, H., Duprég, L.Q., Baucheth, J., Monfortg, E., Bosshardte, E., & Courbetg, L.** (2018). Special issue on technology and neuropsychological rehabilitation: Overview and reflections on ways to conduct future studies and support clinical practice. *Neuropsychological Rehabilitation*, 28(5), 864-877.

**Gillespie, A., Best, C., & O'Neill, B.** (2012). Cognitive function and assistive technology for cognition: A systematic review. *Journal of the International Neuropsychological Society*, 18, 1-19.