

Neuropsychological Rehabilitation (PSYC33H3)

University of Toronto, Scarborough
Winter 2021

Course Director: Dr. Brandon Vasquez

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Office Hours: Thursdays at 10 am via Zoom (Meeting ID: 944 7154 1351; Passcode: 522485)
<https://zoom.us/j/94471541351?pwd=WEhMMWRkR3k5L2VZcHVmdGEzdDVLdz09>

Teaching Assistant: Lauren Vomberg

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Course Website: Quercus

Class Time and Location: Asynchronous online (learning modules added weekly)

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:

	Due dates	Content	Grade weight (%)
Midterm exam	TBD	Lectures and required readings	25%
Proposal presentation	March 15/22	Brief (5 min) video-recorded presentation about paper topic	10%
Presentation Feedback	March 19/26	Written feedback on peer presentations	5%
Research paper	April 5	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.	35%
Final exam	TBD	Lectures and readings (since the midterm)	25%

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.

Proposal Presentation & Peer Feedback: You will submit a video-recorded presentation (via Zoom) of your research paper idea using PowerPoint. You will also be expected to watch presentations uploaded by your classmates and provide written feedback to them, which will be reviewed and graded prior to sharing (see assignment instructions for details).

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).

Week	Topic/Module	Required Readings
Jan 11	1. Neuroplasticity & Introduction to Neuropsychological Rehabilitation	Wilson (2008). Neuropsychological rehabilitation. Cramer (2011). Harnessing neuroplasticity for clinical applications.
Jan 18	2. Evidenced-based Treatment & Program Evaluation	Cicerone (2019). Evidence-based cognitive rehabilitation: Systematic review of the literature from 2009 through 2014. Perdices (2009). Single-subject designs as a tool for evidence-based clinical practice: Are they unrecognized and undervalued?
Jan 25	3. Psychotherapeutic Intervention (PCS & ABI)	Ruff (2013). Selecting the appropriate therapies for individuals with traumatic brain injury: What works and what does not? Bergersen (2017). A systematic literature review of psychotherapeutic treatment of prolonged symptoms after mild traumatic brain injury.
Feb 1	4. Memory Intervention – Mild (Older Adults, MCI)	Giebel (2015). Translating cognitive and everyday activity deficits into cognitive interventions in mild dementia and mild cognitive impairment. Murphy (2018). Multicomponent approaches to secondary prevention of dementia.
Feb 8*	5. Memory Intervention – Moderate to Severe Memory Impairment	Svoboda (2012). PDA and smartphone use by individuals with moderate-to-severe memory impairment: application of a theory-driven training programme. Evans (2014). Memory dysfunction.
Feb 15	READING WEEK	
Mar 1*	6. Executive functioning rehabilitation	Turner (2014). Neurorehabilitation of executive functions. Stamenova (2019) Effectiveness of goal management training® in improving executive functions: A meta-analysis.
Mar 8	7. Rehabilitation in Visuospatial & Perceptual Disorders	Burns (2004). Clinical management of agnosia. Azouvi (2017). Rehabilitation of unilateral neglect: Evidence-based medicine.
Mar 15	8. Student Presentations (Language Intervention)	O'Sullivan (2019). Language and language disorders: Neuroscience to clinical practice.
Mar 22	9. Student Presentations (Language Intervention)	Doogan (2018). Aphasia Recovery: When, How and Who to Treat?
Mar 29	10. Behaviour Management in Dementia	Cohen-Mansfield (2001). Nonpharmacologic interventions for inappropriate behaviours in dementia: A review, summary, and critique. Gitlin (2013). Managing behavioral symptoms in dementia using nonpharmacologic approaches: An overview.
April 5	11. Technology in Neuropsychological Rehabilitation PAPER DUE	Bier (2018). Special issue on technology and neuropsychological rehabilitation: Overview and reflections on ways to conduct future studies and support clinical practice Gillespie (2012). Cognitive function and assistive technology for cognition: A systematic review.

*module dates may be adjusted once the midterm exam date is confirmed

Psychology Department Missed Term Work Policy, WINTER 2021

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

Notes:

- 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, please complete the following **two-step** process:

1. Complete the **Request for Missed Term Work Accommodations Form** (<http://uoft.me/PSY-MTW>) and email it to Keely Hicks at keely.hicks@utoronto.ca,
 and

2. **Declare your absence** on [ACORN](#) (Profile & Settings > Absence Declaration)

Deadline: You must complete the above steps **within 3 business days** of the missed work.

Note: For this semester, we do not require any additional supporting documentation (ex. 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 quizzes or tests scheduled at the same time), please complete the following process:

1. Complete the **Request for Missed Term Work Accommodations Form** (<http://uoft.me/PSY-MTW>), choosing "Other" as your reason for missed work 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 Keely Hicks (keely.hicks@utoronto.ca).

Deadline: You should report the conflict to Keely Hicks (keely.hicks@utoronto.ca) **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 may not necessarily 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** (<http://uoft.me/PSY-MTW>), choosing “Other” as your reason for missed work and noting “Religious conflict” in the space provided.
2. Email the form to Keely Hicks (keely.hicks@utoronto.ca).

Deadline: You should report the conflict to Keely Hicks (keely.hicks@utoronto.ca) **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 Time Zone Conflicts:

If you are physically in a different time zone and a quiz or midterm is scheduled outside of 7:00am to midnight in your local time, please complete the following process:

1. Complete the **Time Zone Conflict Form** (<https://uoft.me/PSY-TimeZone>), and
2. Email the form to Keely Hicks (keely.hicks@utoronto.ca)

Deadline: You should report the conflict to Keely Hicks (keely.hicks@utoronto.ca) **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 Keely (keely.hicks@utoronto.ca) detailing accommodations required.

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

- If your desired accommodation is **within the scope** of your Accommodation Letter (ex. your letter includes “extensions of up to 7 days” and you need 3 days):
 1. Complete the **Request for Missed Term Work Accommodations Form** (<http://uoft.me/PSY-MTW>).
 2. Email the form and your **Accommodation Letter** to Keely Hicks (keely.hicks@utoronto.ca).
- If your desired accommodation is **outside the scope** of your Accommodation Letter (ex. 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 Keely Hicks (keely.hicks@utoronto.ca) detailing the accommodations required.

After submitting your documentation:

Within approximately one to five business days, you will receive a response from your instructor detailing the accommodations to be made (if any).

You are responsible for checking your official U of T email and Quercus course announcements daily, as accommodations may be time-critical.

You should continue to work on your assignments to the best of your ability, as extension accommodations may be as short as one business day, depending on the nature of the illness/emergency.

If an accommodation has been granted but you are unable to meet the conditions of the accommodation (ex. you need a longer extension, or you missed a make-up test), you will need to repeat the missed term work procedure and submit additional forms to request further accommodation. Note that in the case of a missed make-up test, an opportunity to write a second make-up test may not be provided.

Completion of this form does not guarantee that accommodations will be made. 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.

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.

(E.g.) If you miss a make-up midterm, you would need to submit another Request for Missed Term Work Accommodations form and declare your extended absence on ACORN.

Importance of Three Business Day window:

If you are unable to submit your documents within the three business day window, **you must email Keely (keely.hicks@utoronto.ca) within the three 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**.

Questions?

If you have any questions about this Missed Term Work policy, please contact Keely Hicks (keely.hicks@utoronto.ca) **well before** the date of the test / assignment deadline to describe your circumstances and inquire about procedures.

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. You 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

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 - January 11

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 - January 18

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 - January 25

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 – February 1

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 - February 8

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 – March 1

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 - March 8

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

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

Topic 8 - March 15

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

Topic 9 – March 22

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 - March 29

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 - April 5

Bier, N., Sablierc, J., Brianda, C., Pinarda, S., Riallee, V., Giroux, S., Pigott, H., Dupr  g, 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.