

**Neuropsychological Rehabilitation (PSYC33H3)**University of Toronto, Scarborough  
Winter 2020Course Director: Dr. Brandon Vasquez

Office Hours: after class; online/phone

Email: [bvasquez@baycrest.org](mailto:bvasquez@baycrest.org) (office: 416 785-2500 x2764)Teaching Assistant: Ivy ChoE-mail: [ivy.cho@mail.utoronto.ca](mailto:ivy.cho@mail.utoronto.ca)Course Website: Quercus**Class Time and Location:** Thursdays 9:00 am – 11:00 am; HLB108

**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 13	Lectures + required readings	30%
Proposal presentation	March 12/19	Brief (5 min) presentation about paper topic	10%
Research paper	April 2	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)	35%

**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 on ALL material covered in the course. However more emphasis will be placed on material covered since the midterm.

**Proposal Presentation:** 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).

**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've learned from the course in designing an intervention, and give greater thought to the implications of applied research. (see assignment instructions for further details).

Date	Topic	Required Readings
Jan 9	1. Introduction to Neuropsychological Rehabilitation	<b>Wilson</b> (2008). Neuropsychological rehabilitation. <b>Cramer</b> (2011). Harnessing neuroplasticity for clinical applications.
Jan 16	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 23	3. 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.
Jan 30	4. 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.
Feb 6	5. Evidence-based concussion management  <b>Guest Speaker: Dr. Eva Svoboda; Toronto Brain Health</b>	<b>McCroly</b> (2017). Consensus statement on concussion in sport – the 5 <sup>th</sup> international conference on concussion in sport held in Berlin, October 2016. <b>Iverson</b> (2017). Predictors of clinical recovery from concussion: a systematic review. <b>Svoboda</b> (2019). Concussion info blog.
<b>Feb 13</b>	<b>MIDTERM EXAM</b>	All lectures and readings to date
<b>Feb 20</b>	<b>READING WEEK</b>	<b>NO CLASS</b>
Feb 27	6. Executive functioning rehabilitation  <b>Guest Speaker: Dr. Gary Turner; York University</b>	<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 5	7. Behaviour Management in dementia  <b>Guest Speaker: Dr. Yael Goldberg, Baycrest Health Sciences</b>	<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.
Mar 12	8. <b>Student Presentations</b> (Language Intervention)	<b>O'Sullivan</b> (2019). Language and language disorders: Neuroscience to clinical practice.
Mar 19	9. <b>Student Presentations</b> (Psychotherapeutic Intervention)	<b>Ruff</b> (2013). Selecting the appropriate therapies for individuals with traumatic brain injury: What works and what does not?
Mar 26	10. Rehabilitation in Visuospatial & Perceptual Disorders	<b>Burns</b> (2004). Clinical management of agnosia. <b>Azouvi</b> (2017). Rehabilitation of unilateral neglect: Evidence-based medicine.
<b>April 2</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.

## **Policies**

### **1) Missed Term Work due to Medical Illness or Other Emergency:**

All students citing a documented reason for missed term work must submit their request for accommodations **within three (3) business days** of the deadline for the missed work.

Students must submit **BOTH** of the following:

- (1.) A completed **Request for Missed Term Work Accommodations form** (<http://uoft.me/PSY-MTW>), and
- (2.) **Appropriate documentation** to verify your illness or emergency, as described below.

#### **Appropriate documentation:**

For missed **TERM TESTS** due to **ILLNESS**:

- Submit the Request for Missed Term Work Accommodations form (<http://uoft.me/PSY-MTW>), along with an **original** copy of the official UTSC Verification of Illness Form ([uoft.me/UTSC-Verification-Of-Illness-Form](http://uoft.me/UTSC-Verification-Of-Illness-Form)) or an **original** copy of the record of visitation to a hospital emergency room. Forms are to be completed in full, clearly indicating the start date, anticipated end date, and severity of illness. The physician's registration number and business stamp are required.
- Note: If an end date of "ongoing" is specified, the medical note will be assumed to cover a period of two weeks. If no end date / an "unknown" end date is specified, the note will be assumed to cover a period of three business days (starting from illness start date.)

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

- Meet with your **AccessAbility consultant** and have them email Keely ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)) detailing the accommodations required.

For missed **ASSIGNMENTS** due to **ILLNESS**:

- Submit the Request for Missed Term Work Accommodations form (<http://uoft.me/PSY-MTW>), along with a **hardcopy** of the Self-Declaration of Student Illness Form ([uoft.me/PSY-self-declare-form](http://uoft.me/PSY-self-declare-form)).

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), submit the Request for Missed Term Work Accommodations form (<http://uoft.me/PSY-MTW>) and attach a copy of your letter. **Specify how many days extension you are requesting** on the request form.
- 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) you will need to meet with your **AccessAbility consultant** and have them email Keely ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)) detailing the accommodations required.

For missed term tests or assignments in **OTHER CIRCUMSTANCES**:

Submit the Request for Missed Term Work Accommodations form (<http://uoft.me/PSY-MTW>), along with:

- In the case of a **death of a family member or friend**, please provide a copy of a death certificate.
- For U of T varsity-level or professional **athletic commitments**, an email from your coach or varsity administrator should be sent directly to Keely Hicks ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)) **well in advance** of the missed work, detailing the dates and nature of the commitment.
- For **religious accommodations**, please email ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)) **well in advance** of the missed work.
- For circumstances **outside of these guidelines**, please email Keely ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)) on or before the date of the test / assignment deadline to describe your circumstances and ask what documentation would be appropriate

Documents covering the following situations are NOT acceptable: medical prescriptions, personal travel, weddings/personal/work commitments.

**Procedure:**

Submit your (1.) [request form](#) and (2.) [medical/self-declaration](#)/other documents in person **WITHIN 3 BUSINESS DAYS** of the missed term test or assignment.

**Submit to:** Keely Hicks, Room SW420B, Monday – Friday, 9 AM – 4 PM. (Slide forms under door if out of office.)

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. If your original medical note / documentation included the date of the make-up midterm, then only the Request form is required. If the date of the make-up midterm fell outside of the dates indicated on your original medical note/other documentation, then a new medical note/other appropriate documentation must also be submitted.

**Importance of Three Business Day window:**

If you are unable to submit your documents in-person within the three business day window, **you must email Keely** ([keely.hicks@utoronto.ca](mailto:keely.hicks@utoronto.ca)) **within the three business day window** to explain when you will be able to bring your documents in person. Exceptions to the documentation deadline will only be made under **exceptional circumstances**. Attach scans of your documentation, and be prepared to bring your documents to Keely in-person as soon as you are well. Late documents may not be accepted.

**NOTE: Assignments due at end of term**

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>).

**NOTE: Final Exams**

This policy applies only to missed assignments and term tests. Missed final exams are handled by the Registrar's Office (<http://www.utoronto.ca/registrar/missing-examination>).

**2) 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.

**3) Policy on Academic Misconduct:**

Students are responsible for avoiding the occurrence of academic misconduct. Plagiarism is the unacknowledged borrowing (or “stealing”) of another writer’s words and ideas, and minor changes in the wording here and there are not sufficient to avoid plagiarism. Students are urged to refer to <http://www.utoronto.ca/writing/plagsep.html> for more details on what counts as plagiarism and what can be done to avoid plagiarism. It is a students’ responsibility to read and understand the department’s policies on plagiarism.

**4) 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 9

- 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 16

- 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 23

- 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 4 - January 30

- 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 5 - February 6**

**McCrory, P.** et al. (2017). Consensus statement on concussion in sport – the 5<sup>th</sup> international conference on concussion in sport held in Berlin, October 2016. *British Journal of Sports Medicine*, 51, 838-847.

**Iverson, G.L., Gardner, A.J., Terry, D.P., Ponsford, J.L., Sills, A.K., Broshek, D.K., & Solomon, G.S.** (2017). Predictors of clinical recovery from concussion: a systematic review. *British Journal of Sports Medicine*, 51, 941-948.

**Svovoda** (2019) Concussion info blog

<https://www.torontobrainhealth.com/post/concussion-treatment-for-persistent-symptoms>

**Topic 6 - February 27**

**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 5**

**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 8 - March 12**

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

**Topic 9 - March 19**

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

**Topic 10 - March 26**

**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 11 - April 2**

**Bier, N., Sablierc, J., Brianda, C., Pinarda, S., Riallee, V., Giroux, S., Pigotf, 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.