

Neuropsychological Rehabilitation (PSYC33H3)
 University of Toronto, Scarborough
 Winter 2019

Course Director: Dr. Brandon Vasquez Office Hours: after class; online/phone

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

Teaching Assistant: Jacob Koudys
 E-mail: jacob.koudys@mail.utoronto.ca

Course Websites: [Quercus](#)

Class Time and Location: Thursdays 9:00 am – 11:00 am; BV 361

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-regulation (dementia). Other relevant topics in neuropsychological rehabilitation are also covered including program evaluation, neuroplasticity, and psychotherapeutic interventions.

Evaluation:

	Due dates	Content	Grade weight (%)
Midterm exam	February 14	Lectures + required readings	30%
Proposal presentation	March 14/21	Brief (5 min) presentation about paper topic	10%
Research paper	April 4	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	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 10	1. Introduction to Neuropsychological Rehabilitation	Wilson (2008). Neuropsychological rehabilitation. Cramer (2011). Harnessing neuroplasticity for clinical applications.
Jan 17	2. Evidenced-based treatment & program evaluation	Cicerone (2011). Evidence-based cognitive rehabilitation: updated review of the literature from 2003 through 2008. Perdices (2009). Single-subject designs as a tool for evidence-based clinical practice: Are they unrecognized and undervalued?
Jan 24	3. Evidence-based concussion management Guest Speaker: Dr. Eva Svoboda; Toronto Brain Health	McCrory (2017). Consensus statement on concussion in sport – the 5 th international conference on concussion in sport held in Berlin, October 2016. TBD
Jan 31	4. Executive functioning & rehabilitation	Turner (2014). Neurorehabilitation of executive functions Armann (2015). Functional brain network modularity predicts response to cognitive training after brain injury
Feb 7	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 14	MIDTERM EXAM	All lectures and readings to date
Feb 21	READING WEEK	NO CLASS
Feb 28	6. Memory Intervention Older Adults, MCI, Dementia Guest speaker: Dr. Kelly Murphy; Baycrest, U of T, Toronto Brain Health	Giebel (2015). Translating cognitive and everyday activity deficits into cognitive interventions in mild dementia and mild cognitive impairment. Murphy (In press). Multicomponent approaches to secondary prevention of dementia.
Mar 7	7. Visuospatial & Perceptual Disorders	Burns (2004). Clinical management of agnosia. Fasotti (2013). Novel insights in the rehabilitation of neglect.
Mar 14	8. Student Presentations (Language Intervention)	Berthier (2011). Neuroscience insights improve neurorehabilitation of poststroke aphasia
Mar 21	9. Student Presentations (Psychotherapeutic Intervention)	Ruff (2013). Selecting the appropriate therapies for individuals with traumatic brain injury: What works and what does not?
Mar 28	10. Behaviour Management in dementia Guest Speaker: Dr. Yael Goldberg, Clinical Psychologist & neuropsychologist, Baycrest Health Sciences	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 4	11. Emerging & Special Topics PAPER DUE	Wilson (2011). Cutting edge' developments in neuropsychological rehabilitation and possible future directions Gillespie (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) 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.

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).

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.
- In the case of a **disability-related concern**, if your desired accommodation is within the scope of your Accommodation Letter, please attach a copy of your letter. If your desired accommodation is outside the scope of your Accommodation Letter (ex. if your letter says "extensions of up to 7 days" but you need more time than that) you will need to meet with your consultant at AccessAbility Services and have them email Keely Hicks (keely.hicks@utoronto.ca) detailing the accommodations required.
- For U of T Varsity **athletic commitments**, an email from your coach or varsity administrator should be sent directly to Keely Hicks (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) **well in advance** of the missed work.

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

Exceptions to the documentation deadline will only be made under exceptional circumstances. If you are unable to meet this deadline, you must email Keely Hicks (keely.hicks@utoronto.ca) **within the three business day window** to explain when you will be able to bring your documents in person. Attach scans of your documentation.

Within approximately one week, you will receive an email 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.**

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.

Instructors cannot accept term work after April 12, 2019. Beyond this date, you would need to file a petition with the Registrar's Office to have your term work accepted (<https://www.utoronto.ca/registrar/term-work>).

Note that 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:

- Always use the website discussion board for course-related questions. This way, all students will benefit from the reply, whether from the instructor, TAs, or your fellow students. If you send content related emails you will simply be asked to post the query on the discussion board. I will be checking the board regularly and will address (relevant) unanswered messages.
- If your question is not suitable for the discussion board (and please think carefully about this), send it to the instructor only. Emails not suitable for the discussion board would include those that are personal in nature.
- 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

January 10

- 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.

January 17

- Cicerone, K. D., Langenbahn, D. M., Braden, C., Malec, J. F., Kalmar, K., Fraas, M., . . . Ashman, T.** (2011). Evidence-based cognitive rehabilitation: updated review of the literature from 2003 through 2008. *Archives of Physical Medicine and Rehabilitation*, 92(4), 519-530.
- 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.

January 24

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

TBD

January 31

- Turner, G.R. and 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]
- Arnemann, K. L., Chen, A. J.-W., Novakovic-Agopian, T., Gratton, C., Nomura, E. M., & D'Esposito, M.** (2015). Functional brain network modularity predicts response to cognitive training after brain injury. *Neurology*, 84(15), 1568–1574.
<http://doi.org/10.1212/WNL.0000000000001476>

February 7

- 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]

February 28

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. (In press). Multicomponent approaches to secondary prevention of dementia. In Smith, G.E. & Farias, S (eds.) *APA Handbook of Dementia*. Washington: APA Books. [will post on Quercus]

March 7

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

Fasotti, L. and van Kessel, M. (2013). Novel insights in the rehabilitation of neglect. *Frontiers in Human Neuroscience*, 7, 780.

March 14

Berthier, M. L., Pulvermuller, F. (2011). Neuroscience insights improve neurorehabilitation of poststroke aphasia. *Nature Reviews Neurology*, 7(2), 86-97.

March 21

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

March 28

Cohen-Mansfield. (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., and Lyketsos, C.G. (2013). Managing behavioral symptoms in dementia using nonpharmacologic approaches: An overview. *JAMA*, 308(19), 2020-2029.

April 4

Wilson, B. A. (2011). Cutting edge' developments in neuropsychological rehabilitation and possible future directions. *Brain Impairment*, 12(1), 33–42.

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