

University of Waterloo
Department of Psychology
Psych 335: Developmental Neuropsychology
Fall 2019
Tuesdays & Thursdays 1:00 – 2:30 pm, AL 208

Instructor Information

Instructor:	Tara McAuley	Email:	tara.mcauley@uwaterloo.ca
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Note: I will do my best to respond within 24 hours to emails and/or calls received Mon-Fri.

T.A. Information

TA:	Rebecca Trossman	Email:	rctrossman@uwaterloo.ca
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Course Description

Developmental neuropsychology is a field in which brain-behaviour relationships are examined in the context of typical and atypical development. This course will focus on the structural development of the brain, the emergence of functional brain systems, and the neuropsychological underpinnings of childhood brain disorders. Emphasis will be placed on the integration of theoretical perspectives, empirical research, and clinical practice.

Course Goals and Learning Outcomes

Upon completion of this course, students should be able to:

- A. Identify historical events that gave rise to the field of clinical neuropsychology in general and developmental neuropsychology in particular
- B. Identify stages of brain development, major subdivisions of the brain, and specialized brain circuits that support neuropsychological functions
- C. Identify the neural, cognitive, and behavioural sequelae of brain-based disorders of childhood
- D. Understand the theoretical basis for different approaches to neuropsychological rehabilitation with a developing population

Required Text and Readings

1. Child neuropsychology: Concepts, theory, and practice (text). This text was used in Winter 2017 and 2018, so it may be possible to obtain a used copy.
2. Psych 335 Fall 2018 readings (courseware). These readings were used in Winter 2017 and 2018, so it may also be possible to obtain a used copy of the courseware package. These readings must be purchased, new or used, because they are copyright protected and cannot be made freely available online.

Course Requirements and Assessment

Your final grade is based on the points you accrue on 3 out of 4 tests, a final paper, and optional bonus credit. A large amount of information is presented in this course, which places heavy demands on rote memorization and higher-level critical thinking. As such, tests are scheduled approximately every 3 weeks to encourage students to stay on top of material and to reduce the amount of material covered on any one test. The break-down of grades is as follows:

Assessment	Date of Evaluation	Weighting
Test 1	Sept 27	25%
Test 2	Oct 23	25%
Test 3	Nov 8	25%
Test 4	Nov 29	25%
Final Paper	Dec 4	25%
Bonus Credit	Nov 27	3%
Total (based on 3 out of 4 test scores)		103% (100 max)

Tests

Tests are based on assigned readings and lecture material and consist of multiple choice and short answer questions. Questions require knowledge of basic facts and the ability to apply this knowledge to real-world situations. The 3 highest test scores are counted toward the final grade for students who write all 4 tests. Because students who write only 3 tests do not have the option of dropping their lowest test score, it is to the student's advantage to write all 4 tests. THERE ARE NO MAKE-UP DATES FOR MISSED TESTS IN THIS COURSE FOR ANY REASON.

Final Paper

A final paper requires students to integrate knowledge acquired throughout the course. This assignment should be uploaded to the Dropbox on Learn prior to midnight on Dec 4. Because students have the entire term to work on this assignment, LATE PAPERS WILL NOT BE ACCEPTED EXCEPT FOR VERIFIED ILLNESS OR BEREAVEMENT (see below for required steps and documentation) – in which case an extension will be agreed upon by the student and instructor.

Text matching software (Turnitin®) will be used to verify that use of all materials and sources is documented. Students who do not want to have their assignment screened by Turnitin may submit their assignment directly to the instructor along with hard copies of cited material in which cited information is highlighted. PLEASE ENSURE THAT YOU ARE AWARE OF WHAT PLAGIARISM IS AND HOW IT MAY BE AVOIDED IN YOUR WORK (e.g., subjectguides.uwaterloo.ca/plagiarism). Plagiarism is a serious academic offence and assignments that are plagiarized may, at the instructor's discretion, receive a hefty penalty (e.g., a grade of 0) and be referred to the Dean.

Bonus Credit

Students may earn up to 3% bonus credit based on contributions to our class Discussion Board on Learn. This may include:

- An original post, including a link to an online source (e.g., website, news item, etc.) with a description of how the source is relevant to course content
- A response to someone else's original post or reponse to a post – being sure to include something that is relevant to course content.

Students may earn up to 3% bonus credit via their posts – at least one of which must be an original posting.

Roles and Responsibilities

The instructor is available to address questions about any aspect of the course. The instructor and/or TAs are available to review tests and to assist with the final written assignment.

Class attendance is not mandatory; however, it is strongly recommended that students attend lectures as they contain information that will not be covered in the readings nor detailed on the slides. Slides are intended to serve as a framework for note-taking (not as a substitute for attendance) and will be posted as pdfs to Learn before each class. Power point files will not be provided.

Students are encouraged to ask questions when material is unclear – either in class or by e-mail. The instructor will repost questions anonymously to the Discussion Board on Learn for the benefit of all students in the course (if you have a question, it is very likely that your peers do as well).

Intellectual Property

Students should be aware that this course contains the intellectual property of the course instructor as well as others. Intellectual property includes items such as:

- Lecture content, spoken and written (and any audio/video recording thereof);
- Lecture handouts, presentations, and other materials prepared for the course
- Questions or solution sets from various types of assessments (e.g., assignments, quizzes, tests, final exams); and
- Work protected by copyright (e.g., any work authored by the instructor or used by the instructor with permission of the copyright owner, course readings, etc.).

Course materials and the intellectual property contained therein, are used to enhance a student's educational experience. However, sharing this intellectual property without the intellectual property owner's permission is a violation of intellectual property rights. For this reason, it is necessary to ask the instructor for permission before uploading and sharing the intellectual property of others online (e.g., to an online repository).

Permission from an instructor is also necessary before sharing the intellectual property of others from completed courses with students taking the same/similar courses in subsequent terms/years. In many cases, instructors might be happy to allow distribution of certain materials. However, doing so without expressed permission is considered a violation of intellectual property rights.

Please alert the instructor if you become aware of intellectual property belonging to others (past or present) circulating, either through the student body or online. The intellectual property rights owner deserves to know (and may have already given their consent).

Electronic Device Policy

Research suggests that students are better able to retain information that is presented in lecture when they hand-write notes and are not tempted by the distractions that are inherent in technology. Though it is preferable for students to attend lectures without phones, laptops, etc., students may use these devices as long as they do not cause a distraction to the instructor or other students. Students are requested to turn cell phones off during lectures and to avoid chatting with their neighbours, the latter of which is noticeable to the instructor and other students and is distracting.

Course Outline

*These identify readings in the courseware package. All other readings are in the text.

Date	Topic	Readings
Sept 6	Course overview and introduction to the field	N/A
Sept 11	Brain basics	*Semrud-Clikeman, M., & Teeter-Ellison, P.A. (2009). Child neuropsychology: Assessment and interventions for neurodevelopmental disorders, 2 nd Ed. (pp. 25-46).
Sept 13	Development of brain structure and function	*Anderson, A., Northam, E., Hendy, J., & Wrennall, J. (Eds.). (2001). Developmental neuropsychology: A clinical approach (pp.25 - 68).
Sept 18		
Sept 20	Early brain insult and recovery	*Anderson, A., Northam, E., Hendy, J., & Wrennall, J. (Eds.). (2001). Developmental neuropsychology: A clinical approach (pp.103-124).
Sept 25		
Sept 27	TEST 1	
Oct 2	Intelligence	N/A
Oct 4	"What" and "Where" Visual Functions	Atkinson, J., & Nardini, M. (2008). The neuropsychology of visuospatial and visuomotor development. In J. Reed & J. Warner-Rodgers (Eds.), Child neuropsychology: Concepts, theory, and practice (pp.183-217).
Oct 9	FALL BREAK	
Oct 11	Attention	Sinclair, M., & Taylor, E. (2008). The neuropsychology of attention development. In J. Reed & J. Warner-Rodgers (Eds.), Child neuropsychology: Concepts, theory, and practice (pp.235-263).
Oct 16	Executive Functions	Hughes, C. & Graham, A. (2008). Executive functions and development. In J. Reed & J. Warner-Rodgers (Eds.), Child neuropsychology: Concepts, theory, and practice (pp.264-284).
Oct 18	Memory	MacNeill Horton, A., & Soper, H. (2008). The neuropsychology of children's memory. In J. Reed & J. Warner-Rodgers (Eds.), Child neuropsychology: Concepts, theory, and practice (pp.218-234).
Oct 23	TEST 2	
Oct 25	Language	Dick, F., Leech, R., & Richardson, F. (2008). The neuropsychology of language development. In J. Reed & J. Warner-Rodgers (Eds.), Child neuropsychology: Concepts, theory, and practice (pp.139-182).
Oct 30	Social Cognition	Baron-Cohen, S. & Chakrabarti, B. (2008). Social neuroscience. In J. Reed & J. Warner-Rodgers (Eds.), Child neuropsychology: Concepts, theory, and practice (pp. 316-339).
Nov 1	Fetal Alcohol Exposure	*Mattson, S.N, & Vaurio, L. (2010). Fetal alcohol spectrum disorders. In K.O. Yeates, M.D. Ris, H.G. Taylor, & B.F.

Date	Topic	Readings
		Pennington. (Eds.). Pediatric neuropsychology: Research, theory, and practice (pp.265-293).
Nov 6	Phenylketonuria	*Waisbren, A.E., & Anshtel, K.M. (2013). Phenylketonuria. In I.S. Baron & C. Rey-Casserly (Eds). Pediatric neuropsychology: Medical advances and lifespan outcomes (pp. 219-236).
Nov 8	TEST 3	
Nov 13	Autism	*Joseph, L., Black, D., & Thurm, A. (2013). Autism Spectrum Disorders. In I.S. Baron & C. Rey-Casserly (Eds). Pediatric neuropsychology: Medical advances and lifespan outcomes (pp. 27-52).
Nov 15	Traumatic Brain Injury	*Kirkwood, M.W., Peterson, R.L., & Yeates, K.O. (2013). Traumatic Brain Injury. In I.S. Baron & C. Rey-Casserly (Eds). Pediatric neuropsychology: Medical advances and lifespan outcomes (pp. 302-320).
Nov 20	Neuropsychological Interventions	*Semrud-Clikeman, M., & Teeter-Ellison, P.A. (2009). Child neuropsychology: Assessment and interventions for neurodevelopmental disorders, 2 nd Ed. (pp 413 -433).
Nov 22	Neuropsychological Practice with Case Studies	Warner-Rogers, J., & Reed, J. (2008). A clinician's guide to child neuropsychological assessment and formulation. In J. Reed & J. Warner-Rodgers (Eds.), Child neuropsychology: Concepts, theory, and practice (pp. 432-449).
Nov 27	Training Considerations	N/A
Nov 29	TEST 4	

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. See the [UWaterloo Academic Integrity webpage](#) and the [Arts 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 his/her actions. 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 he/she has a ground for an appeal should refer to [Policy 72 - Student Appeals](#)

Accommodation for Students with Disabilities

The [AccessAbility Services](#) office, located on the first floor of the Needles Hall extension (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.

Accommodation for course requirements

- Students requesting accommodation for course requirements (e.g., final assignment) due to illness should do the following:
 - seek medical treatment as soon as possible and obtain a completed uWaterloo [Verification of Illness Form](#)
 - submit that form to the instructor within 48 hours.
 - (if possible) inform the instructor by the due date for the course requirement that you will be unable to meet the deadline and that documentation will be forthcoming.
- In the case of a missed assignment deadline, the instructor will either:
 - waive the course component and re-weight remaining term work as he/she deems fit according to circumstances and the goals of the course, or
 - provide an extension.
- In the case of bereavement, the instructor will provide similar accommodations to those for illness. Appropriate documentation to support the request will be required.
- Students who are experiencing extenuating circumstances should also inform their academic advisors regarding their personal difficulties.
- Elective arrangements such as travel plans are not acceptable grounds for granting accommodations to course requirements per the [uWaterloo Examination Regulations and Related Matters](#).

Official version of the course outline

If there is a discrepancy between the hard copy outline (i.e., if students were provided with a hard copy at the first class) and the outline posted on LEARN, the outline on LEARN will be deemed the official version. Outlines on LEARN may change as instructors develop a course, but they become final as of the first class meeting for the term.

Cross-listed course

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/PSYCH cross-list will count in the Philosophy major average, even if the course was taken under the Psychology rubric.