

University of Waterloo
Department of Psychology
308
Psychology of Reading
Winter 2017
10-11:20 TTH, HH 1108

Instructor and T.A. Information

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The course uses LEARN both for materials and class announcements. Please check LEARN regularly. Also, please check the uWaterloo Home Page for important announcements should an emergency arise (e.g., snow storm).

Please contact the instructor and TA using the email address provided above. If we need to contact you, then we will do so using your official uWaterloo address. Students are responsible for all e-mail that is sent to the official uWaterloo email address. Check e-mail regularly for important and time sensitive messages. See [Statement on official student e-mail address](#) for further details e.g., procedures and warnings regarding forwarding e-mail to other accounts

Course Description

“to completely analyze what we do when we read would almost be the acme of a psychologist’s achievements, for it would be to describe very many of the most intricate workings of the human mind.”

-Huey

This course will provide an introduction to the psychology of reading. We will discuss how adults read, from single word recognition to reading and comprehending connected text, how the reading system can be impaired (i.e., dyslexia), and how the reading system develops. This discussion will emphasize current theorizing in the psychology of reading and will include learning about computational models of reading. The main format is lecture. Reading will be primary source and chapters from select books.

Course Objectives

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

- A. Demonstrate knowledge of major concepts, theories, and empirical findings in the psychology of reading

- B. Demonstrate the ability to comprehend primary source articles in the psychology of reading. This will involve the ability to understand research methods, interpret basic statistics, understand experimental logic, and be able to understand the implications (e.g., theoretical, applied) of the research
- C. Demonstrate the ability to understand the relation between data and theory in the psychology of reading
- D. Demonstrate the ability to think critically and communicate effectively about the psychology of reading

Required Readings

Readings for the course will consist of primary source material (i.e., journal articles, chapters). While the number of pages of text required each week may not be high, reading primary source material is typically much more challenging than textbooks so you should be prepared to read papers more than once. All readings are available on LEARN.

Course Requirements and Assessment

Assessment	Weighting
Quizzes	50%
Written Assignment	25%
Creative Assignment (Text Analysis)	15%
Computational Modelling Assignment	10%
BONUS: Research Experience	4%
Maximum	100%

Quizzes (50%)

There will be 10 quizzes in the course. These quizzes will focus on the topics for the previous 2 weeks (except Quiz 1 which will be based on only the first week). Many topics are discussed throughout the term (e.g., the dual route model) and are testable when relevant. This includes readings and material presented during lectures. Testing has been demonstrated to be one of the most effective means of learning material. Each quiz is worth an equal portion of your grade. Your worst quiz will not contribute to your grade. Quizzes will be multiple-choice and short answer. The quizzes are timed, with only 15 minutes available for each. The quizzes will be taken in class and tentative quiz dates are listed below. When completing multiple-choice questions you must choose the best answer for each question, even though the other answers may have some qualities of a correct answer. The quiz dates are **tentative**:

- Quiz 1: Jan 12th
- Quiz 2: Jan 19th
- Quiz 3: Jan 26th
- Quiz 4: Feb 2nd
- Quiz 5: Feb 9th

Quiz 6: Feb 16th
Quiz 7: Mar 2nd
Quiz 8: Mar 9th
Quiz 9: Mar 16th
Quiz 10: Mar 30th

Computational Modelling Assignment – Dual Route Cascaded Model (10%)

A full description of this assignment will be available on Learn. An important part of the course is understanding the role of computational modelling in the psychology of reading. This assignment will provide you with hands-on experience performing simulations using a popular computational model of reading. Specifically, you will use an existing version of the Dual Route Cascaded Model to simulate critical empirical results in the psychology of reading. A tutorial on how to use the model will be provided in class.

DUE DATE: FEB 14th (before midnight) submitted through LEARN

Creative Assignment – Text Analysis (15%)

A full description of this assignment will be available on Learn. In the psychology of reading the measurement or the quantification of properties of words and text plays a central role. This assignment will provide you with hands-on experience performing these kinds of analyzes. In this assignment you will use a tool or tools designed to measure various properties (e.g., average word frequency, cohesion, lexical diversity) of connected texts (e.g., articles, books) in order to compare a set of texts on those properties. Critically, you will choose which properties of texts and which texts to compare in an effort to tell an interesting story about the texts or the measured properties. You will write up and submit the results of your analysis and present them to the class at the end of the term.

DUE DATES: Written Component Mar 14 (before midnight) submitted through LEARN; Oral Presentation Component [TBA: Week 11 or 12]

Written Assignment – Reading Habits (25%)

A full description of this assignment will be available on Learn. Engaging in reading has important consequences for both developing our reading abilities and arguably other important aspects of our day-to-day cognitive lives (e.g., our general knowledge) and as such understanding reading habits is critical. The written assignment is a two-part project focusing on reading habits and the potential consequences of modern technology on reading. The first part of the assignment will be to keep a weekly reading diary that keeps track of your personal reading habits with a focus on the mediums through which you read and how much reading you engage in. The second part of the assignment will be an argumentative essay focused on the potential influence of modern technology (e.g., the Internet) on reading behaviour and

how this might impact our day-to-day cognitive lives. This will include reflection on your own reading habits as captured in your reading diary.

DUE DATES: Final Written Component Apr 7 submitted through LEARN; Weekly Reading Diaries are due each week before Sunday at Midnight excluding reading week and Week 12 also submitted through LEARN

Research Experience – BONUS (4%)

Please see “Sona and Research Experience Marks Information and Guidelines” available on learn for information.

***Please note for all assignments that plagiarism is an academic offence. Work submitted for other courses cannot be used in this course. All written assignments should be in APA format.

Course Outline (dates/topics subject to change)

Week - Date	Topic(s)	Required Readings
Week 1 – 3 - Jan	Course Introduction	None
Week 1 – 5 - Jan	Reading System: A Dual-Route Framework	Jackson & Coltheart (2001). Dual-route theories of reading. In Routes to Reading Success and Failure. pp. 39-51.
Week 2 – 10 - Jan Week 2 – 12 - Jan	Reading System: Acquired Dyslexia and the Dual-Route Framework	Coltheart, M., Masterson, J., Byng, S., Prior, M., & Riddoch, J. (1983). Surface dyslexia. Quarterly Journal of Experimental Psychology, 35(3), 469-495. [focus on the patient with acquired dyslexia] Caccappolo-van Vliet, E., Miozzo, M., & Stern, Y. (2004). Phonological dyslexia: A test case for reading models. Psychological Science, 15(9), 583-590.
Week 3 – 17 - Jan	Reading System: A Computational Account of The Dual-Route Framework	Coltheart, M., Rastle, K., Perry, C., Langdon, R., & Ziegler, J. (2001). DRC: a dual route cascaded model of visual word recognition and reading aloud. Psychological review, 108(1), 213-220 [stop at Simulation of Reading Aloud]
Week 3 - 19- Jan	Modelling Tutorial	Guest Lecture: Darcy White

Week 4 - 24-Jan Week 4 - 26-Jan	Reading System: Characteristics of The Lexical Route	Forster, K. I., & Chambers, S. M. (1973). Lexical access and naming time. <i>Journal of Verbal Learning and Verbal Behavior</i> , 12, 627-635. Visser, T. A., & Besner, D. (2001). On the dominance of whole-word knowledge in reading aloud. <i>Psychonomic Bulletin & Review</i> , 8(3), 560-567.
Week 5 – 31 - Jan Week 5 – 2 - Feb	Reading System: Characteristics of The Non-Lexical Route	Weekes, B. S. (1997). Differential effects of number of letters on word and nonword naming latency. <i>The Quarterly Journal of Experimental Psychology: Section A</i> , 50(2), 439-456. Coltheart, M., & Rastle, K. (1994). Serial processing in reading aloud: Evidence for dual-route models of reading. <i>Journal of Experimental Psychology: Human Perception and Performance</i> , 20(6), 1197-1211.
Week 6 – 7 - Feb Week 6 – 9 - Feb	Eye Movements During Reading	Rayner, K. (2009). Eye movements and attention in reading, scene perception and visual search. 1457-1476 [stop at “Eye movements in scene Perception”] Reichle, E. D., Reineberg, A. E., & Schooler, J. W. (2010). Eye movements during mindless reading. <i>Psychological Science</i> , 21(9), 1300-1310.
Week 7 – 14 - Feb Week 7 – 16 - Feb	Reading Comprehension	Zwann, R. (1999). Situation models: The mental leap into imagined worlds. <i>Current Directions in Psychological Science</i> , 8, 15-18. McNamara, D. S. (2013). The epistemic stance between the author and reader: A driving force in the cohesion of text and writing. <i>Discourse Studies</i> , 15(5), 579-595.
Week RW – 21-Feb	Reading Week	
Week RW – 23-Feb	Reading Week	
Week 8 - 28- Feb Week 8 – 2 Mar	Reading Habits	Mol, S. E., & Bus, A. G. (2011). To read or not to read: A meta-analysis of print exposure from infancy to early adulthood. <i>Psychological Bulletin</i> , 137, 267-296.

Week 9- 7 mar Week 9 – 9 - Mar	The Developing Reader	<p>Ehri, L. C. (1995). Phases of development in learning to read words by sight. <i>Journal of Research in Reading</i>, 18(2), 116-125.</p> <p>Byrne, B. (1998). Instruction in the alphabetic principle. In <i>The foundation of literacy: The child's acquisition of the alphabetic principle</i>. Pp. 75-106.</p>
Week 10 – 14 -Mar Week 10 – 16 -Mar	The Developing Reader	<p>Cunningham, A. E., Perry, K. E., Stanovich, K. E., & Share, D. L. (2002). Orthographic learning during reading: Examining the role of self-teaching. <i>Journal of Experimental Child Psychology</i>, 82(3), 185-199.</p> <p>Maloney, E., Risko, E. F., O'Malley, S., & Besner, D. (2009). Tracking the transition from sublexical to lexical processing: On the creation of orthographic and phonological lexical representations. <i>The Quarterly Journal of Experimental Psychology</i>, 62(5), 858-867.</p>
Week 11 - 21-Mar Week 11 - 23-Mar	Developmental Dyslexia	<p>Gabrieli, J. D. E. (2009). Dyslexia: A new synergy between education and cognitive neuroscience. <i>Science</i>, 325, 280-283.</p> <p>Castles, Datta, Gayan & Olson. (1999). Varieties of developmental reading disorder: Genetic and Environmental Influences. <i>Journal of Experimental Child Psychology</i>, 72, 73-94.</p>
Week 12 - 28-Mar	Measuring Characteristics of Text Presentations	No Reading
Week 12 - 30-Mar	Measuring Characteristics of Text Presentations	No Reading

Electronic Device Policy

Please limit the use of electronic devices in class to course related activities (e.g., taking notes).

Attendance Policy

You are expected to attend all classes.

Intellectual Property

Students should be aware that this course contains the intellectual property of their instructor, TA, and/or the University of Waterloo. 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 (e.g., PowerPoint slides);
- 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 TA or used by the instructor or TA with permission of the copyright owner).

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, TA and/or the University of Waterloo for permission before uploading and sharing the intellectual property of others online (e.g., to an online repository).

Permission from an instructor, TA or the University 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).

Academic Integrity

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

Note 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 (assignments, midterm tests, final exams, etc.) 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 final exam, the instructor and student will negotiate an extension for the final exam, which will typically be written as soon as possible, but no later than the next offering of the course.
- In the case of a missed assignment deadline, midterm test, or quiz, 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](#).

Late Assignments/Missed Quizzes not due to illness/bereavement/extenuating circumstances

- A late penalty of 5% per day late (24 hours) will be levied against late assignments
- Missed quizzes will not be rescheduled (note that you can drop your worst quiz grade)

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.

Unclaimed graded assignments, essays, and midterm tests for this course will be kept in storage in the Psychology Department for a maximum of 16 months after the final grades have been submitted to the Registrar's Office. After that time, these documents will be destroyed in compliance with UW's confidential shredding procedures.