

**PSYCHOLOGY 3911 FA – INTRODUCTION TO RESEARCH PROCESSES**  
**2016 Course Outline**

**INSTRUCTOR:** Dr. Dwight Mazmanian  
**OFFICE:** SN 1016; Telephone 343-8257; Email: [dwight.mazmanian@lakeheadu.ca](mailto:dwight.mazmanian@lakeheadu.ca)  
**CLASS:** Mondays and Wednesdays, 2:30 – 4:00; RB 2042  
**OFFICE HOURS:** Tuesdays and Thursdays, 1:30 – 2:30, or by appointment

**GRADUATE ASSISTANT:**

Carley Pope, M.A., Ph.D. Student ([cpope@lakeheadu.ca](mailto:cpope@lakeheadu.ca))

**COURSE DESCRIPTION:**

In this course we will examine the conceptual, theoretical, and practical aspects of conducting research in the behavioural sciences. Topics will include: (a) searching for a worthwhile research problem; (b) planning, designing, and conducting research; (c) ethical considerations and ethical requirements; (d) examining issues related to data recording and data analyses; and (e) interpreting and communicating research findings.

The primary goals of this course are to provide students with the foundational knowledge required to (a) conduct research in many contexts or settings, (b) complete undergraduate or graduate theses in psychology and related fields, and (c) become critical consumers of research findings. Whenever possible I will also provide you with information and guidance with respect finding a thesis supervisor, and preparing applications to graduate schools or professional programs. Finally, I would like to convince you that conducting research in any context or capacity can be exciting, rewarding, and fun.

You will note that this is a 3000-level course. This means that it is a third-year course. As such, it would be reasonable to expect that it might be harder than a first or second-year course. It would also be reasonable to expect a greater work-load (e.g., more reading, more thinking, harder exams) than a first or second-year course.

**PREREQUISITE:**

Psychology 2101 (Statistical Methods for Behavioural Research) is the formal prerequisite for this course. Students who have not had a statistics course will find some of the material very difficult. I assume that every student has a university-level Introductory Psychology course.

**TEXTS & READINGS:**

Shaughnessy, J., Zechmeister, E., & Zechmeister, J. (2014). *Research methods in psychology* (10<sup>th</sup> ed.). New York, NY: Mc Graw Hill. (required)

American Psychological Association. (2013). *Publication manual of the American Psychological Association* (6<sup>th</sup> ed.). Washington, DC: American Psychological Association. (strongly recommended)

Additional journal articles, book chapters, and/or test manuals will be available on reserve in the library or emailed to your Lakehead University email account. These are required readings. An *initial selection* of readings is presented below. A full reading list will be provided subsequently.

Streiner, D. (2007). A shortcut to rejection: How not to write the results section of a paper. *Canadian Journal of Psychiatry*, 52, 385-389.

Streiner, D. (1996). Maintaining standards: Differences between the standard deviation and standard error and when to use each. *Canadian Journal of Psychiatry*, 41, 498-502.

Streiner, D. (2002). The two “E’s” of research: Efficacy and effectiveness trials. *Canadian Journal of Psychiatry*, 47, 552-556.

Streiner, D. (2007). A shortcut to rejection: How not to write the results section of a paper. *Canadian Journal of Psychiatry*, 52, 385-389.

Streiner, D. (2003). Unicorns do exist: A tutorial on “proving” the null hypothesis. *Canadian Journal of Psychiatry*, 48, 756-761.

<b>EVALUATION:</b>	Midterm Exam	25%	(October 19)
	Assignment 1	10%	(October 26)
	Assignment 2	30%	(November 23)
	Final Exam	35%	(exam period)

(Please note that the mark breakdowns and dates listed above are consistent with Lakehead University’s “timely feedback” regulation.)

*Tests and Exams.* Tests and exams will cover material from the text, lectures, and the additional readings. A signed medical note or equivalent documentary evidence is required if a test or exam is missed because of illness. Other documentation and direct communication with me are required if a test is missed on compassionate grounds. Apart from the two exceptions just noted, a grade of "0" will be assigned for missed tests. For more information regarding formal exams during the scheduled exam period, please refer to the relevant sections of the academic calendar.

*Assignments.* Assignments must be received on or before the due date. One point per day will be deducted for work that is submitted after the due date (i.e., 1 point per day from the total value of each assignment). If an assignment cannot be submitted on time for legitimate medical reasons, a note or equivalent documentary evidence will be required. Other documentation and direct communication with me are required if an assignment cannot be submitted on time for compassionate reasons. Assignment 1 simply involves completing the online tutorial for the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS-2), submitting your certificate of completion, and a brief written summary of key ethical points (details follow). Assignment 2 is a full research proposal, similar to what you would complete for an HBA or HBS thesis (details follow). You can pick any topic you like.

*Bonus Points.* Students in this course may earn up to three (3) additional bonus points by participating in research being conducted in the psychology department, submitting a written an evaluation of a scale published in a peer-reviewed journal (one point per evaluation), or any combination of these. Further details are provided in the attached hand-out. Please note that acquiring bonus points is an optional activity, which means you can ignore this section. This is not a course requirement. If you prefer not to earn the bonus points, you can still theoretically achieve a grade 100% in the course.

As a point of interest, there is usually a very high positive correlation between attendance and final grades in my courses. You can interpret that however you wish. My interpretation is that students who come to all of the classes get the higher grades.

If you are experiencing any difficulties with the material or if you have any questions, the best thing to do is see me during my office hours or arrange to meet with the graduate assistant. Although we make every effort to respond to emails from students in a timely manner, the number of emails we receive each year has been increasing, so please do not expect an immediate response to every email.

### SCHEDULE:

September		7
	12	14
	19	21
	26	28
October	3	5
	10	12 (Study week – no scheduled classes)
	17	19 (Test)
	24	26 (Assignment 1 due)
November	31	2
	7 (Final drop date)	9
	14	16
	21	23 (Assignment 2 due)
	28	30
December	5	

Classes end - exam period (December 8 – 18)

### TOPICS:

Course overview, goals

Scientific method

Ethical issues and standards in research

Descriptive methods – observational techniques

Descriptive methods – survey research

Experimental methods – independent group designs

Experimental methods – repeated measures designs

Experimental methods – complex designs

Applied research – single-case studies, case series

Applied research – quasi-experimental designs, program evaluation

Analysing and reporting research – describing data, confidence intervals, correlation

Analysing and reporting research – tests of statistical significance

Communicating research findings

Please note that test dates, holidays, closures, and add/drop dates are *firm dates*. Please also note that the topics are covered in the same order as they appear in textbook. Finally, the specific chapters that will be covered on each of the four tests depends on how quickly (or slowly) we cover the topics. Some years we might be quicker and cover more topics, other years we might be slower and cover fewer topics. If we need to spend more time on a difficult topic, we will. If we find we can move ahead more quickly, we will. It is essential that you come to classes to find out where we are in the course, and to learn which chapters will be covered on the tests. That is the only safe, effective, and intelligent thing to do. Honest. I cannot say it more clearly than that. I can, however, repeat it using italic font for emphasis. *It is essential that you come*

*to classes to find out where we are in the course, and to learn which chapters will be covered on the tests. That is the only safe, effective, and intelligent thing to do.*

*A Note For Students With Disabilities.* Lakehead University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all of their academic activities. If you think you may need accommodations, you are strongly encouraged to contact Student Accessibility Services (SAS) and register as early as possible. For more information, please visit: <http://studentaccessibility.lakeheadu.ca>

Student Accessibility Services collaborates with all course instructors to provide appropriate accommodations for students with any disabilities. Such accommodations are designed to reduce the impact of the disability without compromising the academic integrity of the course curriculum. If you have a disability, it is your responsibility to provide appropriate documentation to Student Accessibility Services *as soon as possible (i.e., the first week of classes)*. Student Accessibility Services will then contact your instructors, and arrangements will be made to provide appropriate accommodations. Please note that for types of accommodations that require providing tests in alternative format (e.g., oral or audio format, rather than written format), a minimum of four weeks notice is required to ensure the accuracy and equivalence of the alternative format. Please note that I cannot provide note-takers myself; Student Accessibility Services arranges for note-takers. Audio recordings of any nature are only permitted when the recording is made specifically to accommodate a documented disability. Please note that anyone who makes audio recordings of my lectures in the context of an official and approved accommodation will be asked to sign an agreement prohibiting the subsequent copying, disclosure, or distribution of the recordings, or the content of the recordings, in any physical format or electronic format, in keeping with existing legislation and accepted standards relating to “intellectual property”. It is assumed that any agreed-upon accommodations will remain in effect for the duration of the course, unless the nature of the disability has changed and appropriate documents have been provided to confirm the change. Students are not required to reveal medical information to or seek accommodations directly from the instructor or graduate assistants. Finally, if you will be requiring extra time for tests or exams, you should make arrangements to write the tests or exams at Student Accessibility Services (we are required to vacate our classroom at the end of our scheduled time to permit the next class to enter).

*A Note For Students Who Are Experiencing Other Difficulties.* Students who are experiencing general academic problems that are not related to a documented disability should consult with the Student Success Centre (formerly known as Academic Advising). Students who are experiencing medical problems or mental health problems are advised to seek assistance at Student Health and Counselling Services. For any academic matters that are specifically related to this course, you can, of course, see me or the graduate teaching assistant. I am also very happy to discuss more general matters relating to graduate school applications or career options in psychology with you.