Lectures: Tues. 11:30-2:30 in 207 BSB
Webpage: http://www.psych.yorku.ca/janicej/courses.htm
Prerequisites: PSYC 1010 6.0, PSYC 2020 6.0, and PSYC 2030 3.0.
Required Texts:

General Description: We will focus on research methods in cognition and cognitive development. The goal is to give students sufficient background to design, execute, analyze, and report a research study of equivalent standard to an Honours Thesis. Students may work alone or in pairs (but each student must do his/her own written work, in an independent manner). Students may develop their own research topics and submit them to the instructor and TA for approval. Alternatively, they may consult with the instructor or TA for help in developing a topic.

The early Fall term will involve readings, discussions, and lectures on research methods and skills. Each student will prepare a proposal for an independent research project. The Winter term will be devoted mainly to individual consultation on research projects and to actual execution and write-up of the projects.

Labs: Laboratory sessions are designed to teach students the basic skills needed for computer data analysis. Lab sessions will be held in the Hebb Lab (BSB 159).

Evaluation: Grading will be based on: Topic description and annotated bibliography (10%), oral presentation of research design (5%), written research proposal (15%), computer lab assignment (10%), poster presentation of the research results (10%), final written research report (45%), and general class participation (5%).

Stages of research project and due dates:
a) Submit brief descriptions of 3 research questions of interest to you (Sept. 20).
b) Submit a research topic and annotated bibliography (Oct. 18).
c) Present research proposal orally on assigned date in November.
d) Hand in two copies of the written proposal on the Tuesday following your oral presentation. Must include evidence of completion of two on-line ethics tutorials.
e) Lab report on analysis of mock project data (Feb. 7).
f) Written research progress report (Feb. 28).
g) In-class poster presentation of research results (Mar. 27).
h) Hand in two copies of the final written project report (Apr. 2).
PSYC4170 6.0E: Schedule of Topics, Readings, and Major Assignments

Fall Term

Full references for assigned articles: www.psych.yorku.ca/janicej/PSYC4170A/Readings.html

Students should sign up for a September or early October Advanced Psychology Research Workshop in the Scott Library (http://www.library.yorku.ca/wsregistration/ws_main.php).

Sept. 13 Orientation and introduction to the research process. Read an introductory chapter in methods text: generating research ideas; Ch. 1 [DN]
Sept. 20 Design and measurement. Review chapters on measurement and questionnaire design; Ch. 2 and 3 [DN]; research articles TBA. Hand in brief descriptions of 3 research questions of interest to you (2 copies).
Sept. 27 Ethical issues in psychological research; recruitment of research participants; Review a chapter on research ethics; Ch. 7 [DN]; research article TBA.
Oct. 04 Correlational and differential research. Review a chapter on correlational research; Ch 5 [DN]; research article TBA.
Oct. 11 No Class—Reading Week.
Oct. 18 Experimental methods I: Independent groups. Review a chapter on between-groups design and associated analyses; Ch. 6 [DN]; research article TBA. 
Hand in 2 copies of research topic and annotated bibliography.
Oct. 25 Experimental methods II: Correlated groups and factorial designs. Review chapters on within-subjects and complex designs, and associated analyses; Ch. 4 and p. 185-194 [DN]; research article TBA.
Nov. 01 SPSS LAB (11:30-1:30 in 159 BSB); chapter in [AP] TBA (1:30-2:30 office hour).
Nov. 08 SPSS LAB (11:30-1:30 in 159 BSB); chapter in [AP] TBA (1:30-2:30 office hour).
Nov. 15 Presentation of research proposals in class
Nov. 22 Presentation of research proposals in class
Nov. 29 Presentation of research proposals in class
Dec. 06 No class: Instructor and TA available for individual consultation

All students are expected to familiarize themselves with the following information, available on the Senate Committee on Curriculum & Academic Standards webpage (see Student Information Sheet) - http://www.yorku.ca/secretariat/senate_cle_main_pages/ccas.htm
- York’s Academic Honesty Policy and Procedures/Academic Integrity Website
- Ethics Review Process for research involving human participants
- Course requirement accommodation for students with disabilities, including physical, medical, systemic, learning and psychiatric disabilities
- Student Conduct Standards
- Religious Observance Accommodation
Jan. 3  Overview of basic stats. Review a chapter on data analysis; Ch. 9 [DN].

Jan. 10 SPSS LAB (11:30-1:30 in 159 BSB). Read TBA [AP]. Office hour 1:30-2:30.
Jan 24 SPSS LAB (11:30-1:30 in 159 BSB). Read TBA [AP]. Office hour 1:30-2:30.

Jan. 31- Feb 14 No formal class meetings; instructor & TA available, in their offices (TA in computer lab Jan. 31), for individual consultation during scheduled class time. Students should complete data collection by late February. Lab assignment due Feb. 7. NB: Feb. 10 is the last day to withdraw without receiving a grade.

Feb. 21 Reading Week

Feb. 28 Class meeting: Guidelines for preparing research report and poster. Read Ch. 4, 9, and pp. 196-200 [DN]; review Ch. 5 [DN]. Submit written progress report.

Mar. 06-Mar. 20 No formal class meetings; instructor available for individual consultation during scheduled class time. TA available to give assistance with data analysis in the Hebb Lab (159 BSB), Tuesdays 11:30-2:30.

Mar. 27 Last class meeting: Poster presentations of research results.

Apr. 02 Final project report due (hand in 2 copies).

USEFUL WEBSITES (also see course webpage)

Fourth Year Honours Workshops & Grad Studies Info: http://www.yorku.ca/health/psyc/PsychologyHonoursstudent.html

Library tutorials & research guides:
http://www.library.yorku.ca/ccm/Home/ResearchAndInstruction/startresearch.htm
http://researchguides.library.yorku.ca/psychology
http://researchguides.library.yorku.ca/psycinfo

http://owl.english.purdue.edu/owl/resource/560/01/

Locating psychological tests: http://psycentre.apps01.yorku.ca/drpl/
http://www.library.yorku.ca/ccm/ScottReference/guide-to-finding-psychological-tests/introduction-to-psychological-tests.en?
http://www.atkinson.yorku.ca/~rokada/findtest.htm
http://www.webpages.ttu.edu/areifman/qic.htm
http://faculty.sjcnv.edu/~treboux/measurespage.htm
http://darkwing.uoregon.edu/~sanjay/bigfive.html#where
http://www.muhlenberg.edu/depts/psychology/Measures.html

Research ethics: http://www.psych.yorku.ca/ethics
http://www.pre.ethics.gc.ca/english/tutorial/

Academic integrity: http://www.yorku.ca/acadinte/students/
TIMETABLE FOR MAJOR RESEARCH PROJECT (PSYC4170 6.0E 11-112)

Early in the Fall term decide on a general area for your research project. Discuss your ideas with the instructor or TA. Sign up for the Advanced Psychology Research Workshop at Scott Library. Once you have identified a possible topic, conduct a literature search in that area and begin reading relevant research articles. Resources for beginning a literature search include on-line sources like PsycINFO, Web of Science, SCOPUS, Annual Reviews of Psychology (for description of some of these see http://researchguides.library.yorku.ca/psychology). Paper sources include Handbooks in various subfields of Psychology (e.g., Handbook of child psychology; Handbook of personality assessment). Use these sources to identify original research articles.

SEPTEMBER 20
Hand in brief written descriptions of three possible research questions.

OCTOBER 18
Hand in a written description of your proposed research topic. This should be about one paragraph in length, describing the general topic area, one or more possible research questions, and the likely sort of participants (e.g., university students, children, etc.) and methods (e.g., experiment, questionnaire, etc.) you would like to use. This should be accompanied by an annotated bibliography including ten research articles relevant to your topic. The Instructor and TA will give you feedback about how to go about developing your topic or changing it, if what you have proposed is not practical.

NOVEMBER
Students will give brief oral presentations of their research plans in class. A written research proposal is due one week after your presentation. This is a detailed plan of how you propose to carry out your research project. The proposal will consist of a literature review, statement of hypotheses or research questions, detailed description of the method you plan to use (participant sample; measurement instruments; procedure; copies of tests or questionnaires, if available), description of how you plan to analyze the data (i.e., which statistical tests you will use), and a list of references for articles cited in the proposal. The Instructor and TA will give detailed feedback on your proposal, ideally one week after they receive it. The proposal should be accompanied by proof that you have successfully completed the ethics (http://pre.ethics.gc.ca/english/tutorial/) and academic integrity (http://www.yorku.ca/tutorial/academic_integrity) on-line tutorials. Submit a completed Individualized Ethics Form 2 for Psychology Honours Students (download a WORD version at: http://www.psych.yorku.ca/ethics/).

DECEMBER or EARLY JANUARY
Finalize the full details of your research method and procedures and have them approved by the Instructor. Note that you cannot begin data collection, until you receive ethical approval from the instructor.

FEBRUARY 7
Hand-in draft Results section, based on analysis of mock data from your study.
FEBRUARY
Complete data collection by late February. On Feb. 28, submit a written progress report on your research. The progress report will describe briefly (e.g., in one paragraph) the stage you are at in your research.

LATE FEBRUARY and MARCH
Complete data analyses and write the final research report.

MARCH 27
In-class poster presentations of the research projects. On Feb. 28 you will have received information on how to prepare a poster; see also Ch. 10 [DN]. The poster presentation provides an opportunity to share your results with the other students in the class and also to receive feedback before your final report is due.

APRIL 2
Hand in two copies of the final research report. The final report (Thesis) must include the following:

1) Title page
2) Abstract
3) Literature Review
4) Method
   - Participants
   - Materials (apparatus)
   - Procedures
5) Results of data analyses
6) Discussion
7) References
8) Appendices (with copies of all research instruments, sample permission letter or consent form, printouts of SPSS raw data and statistical analyses).
9) Tables and Figures

References:
Must be done according to APA (American Psychological Association) format. For more information, see the Dunn text or the websites listed on p. 3 above. See also the Publication Manual of the American Psychological Association (6th ed.), which is available for study in the Psychology Dept. Resource Centre (Room 160B BSB), in Reserve section of Scott (BF 76.7 P83 2010), and for purchase in the York bookstore.

Assignment Submission: Proper academic performance depends on students doing their work not only well, but on time. Accordingly, assignments for this course must be received on the due date specified for the assignment. Submit assignments personally to the Instructor or TA, or to Prof. Johnson’s secretary in 282 BSB.
Lateness Penalty: Assignments received later than the due date will be penalized. Exceptions to the lateness penalty for valid reasons such as illness, compassionate grounds, etc., may be entertained by the Course Instructor but will require supporting documentation (e.g., a doctor’s letter).