# Faculty of Health Department of Psychology HH/PSYC 4170 Section A ADVANCED RESEARCH IN PSYCHOLOGY Wednesday 7:00-10:00pm Ross South 205 2016-2017

#### **Instructor and T.A. Information**

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T.A.	Massimo di Domenico	Meaghan Mc Manus
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Office Hours	By appointment	Wednesday 5:30p.m6:30p.m.

### **Course Prerequisite(s): Course prerequisites are strictly enforced.**

- HH/PSYC 1010 6.00 (Introduction to Psychology), with a minimum grade of C.
- HH/PSYC 2020 6.00 (Statistical Methods I and II) or substitutes
- HH/PSYC 2030 3.00 (Introduction to Research Methods) or substitutes
- Students must be in an Honours program in Psychology and have completed at least 84 credits (excluding (EDUC) education courses)

# Course website: Moodle

# **Course Description**

Basically, this course is dedicated to ensuring that students have the necessary knowledge and skills to design, execute analyze and report in APA style an original piece of research. It also entails students' completing those steps in producing a thesis-equivalent specimen of such work. To make this possible, we plan to run the course in three overlapping phases:

- 1) development of conceptual and practical background to conduct research and analyze data via textbook, occasional supplementary readings, lectures, minor assignments, and hands-on experience;
- 2) written and oral preparation and presentation of student research proposals for discussion and probable modification;
- 3) execution, analysis, and reporting of research.

### **Learning Outcomes**

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

- 1) Use data analytic software for analysis of psychological data.
- 2) Design, execute, analyse and interpret results from a study examining a specific research question.
- 3) Express in written form psychological findings using APA style.
- 4) Express in written form, a research study in psychology.
- 5) Recognize limits of conclusions based on inferential statistics.
- 6) Apply ethical principles of the CPA code of ethics to their own research.

### **Specific Learning Objectives**

This course has five major objectives:

- 1) to enable students to formulate, plan, execute, analyze, and report independent research;
- 2) to have them produce one completed piece of such work;
- 3) to enable students to assess the research plans and reports of others in a constructively critical way;
- 4) to enable students to deal constructively with such critical input from others;
- 5) to enable students to discuss methodological issues in psychology comfortably, while using the technical vocabulary appropriately.

To ensure achievement of these objectives, we plan to run the course in three overlapping phases:

- 1) development of conceptual and practical background to conduct research and analyze data via textbook, occasional supplementary readings, lectures, minor assignments, and hands-on experience;
- 2) written and oral preparation and presentation of student research proposals for discussion and probable modification;
- 3) execution, analysis, and reporting of research.

# **Required Text**

Cozby, P. C. & Rawn, C. D. (2016). <u>Methods in behavioural research (Second Canadian</u> <u>Edition</u>). New York: McGraw-Hill Education.

### **Course Requirements and Assessment**

Assessment	Date of Evaluation (if known)	Weighting
Mini-assignments	Sept. 21 to Oct. 26,2016	5%
Final-draft proposal	Nov. 23 2016	20%
SPSS assignments	Jan. 11, 18; Feb. 1, 8, 2017	5%
Final exam	Jan. 25, 2017	25%
Class Presentation	Feb. 15 to April 5, 2017	5%
Final Report/Thesis	April 5, 2017	40%
Total		100%

### **Description of Assignments**

Assignments are repeated in the Course Schedule below and described in the course's Moodle website.

### **Grading as per Senate Policy**

The grading scheme for the course conforms to the 9-point grading system used in undergraduate programs at York (e.g., A + = 9, A = 8, B + -7, C + = 5, etc.). Assignments and tests\* will bear either a letter grade designation or a corresponding number grade (e.g. A + = 90 to 100, A = 80 to 90, B + = 75 to 79, etc.)

(For a full description of York grading system see the York University Undergraduate Calendar - http://calendars.students.yorku.ca/2016-2017/academic-and-financial-information/academic-services/grades-and-grading-schemes

# Late Work/Missed Tests or Exams

Assignments received later than the due date will be penalized by 2.5% of the value of the assignment for each day late. 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. Attending Physician Statement, which can be found at: <u>http://registrar.yorku.ca/pdf/attending-physicians-statement.pdf</u>, or death certificate).

Students with a documented reason for missing a course test, such as illness, compassionate grounds, etc., which is confirmed by supporting documentation (e.g. Attending Physician Statement or death certificate) may request accommodation from the Course Instructor. Further extensions or accommodation will require students to submit a formal petition to the Faculty. Only one make-up exam will be scheduled by course staff for all those who miss the originally scheduled exam.

# **Add/Drop Deadlines**

For a list of all important dates please refer to: Important Dates

Important dates	Fall (F)	Year (Y)	Winter (W)
Last date to add a course <b>without</b> permission of instructor	Sept. 21	Sept. 21	Jan. 18
(also see Financial Deadlines) Last date to add a course <b>with permission</b> of instructor			
(also see Financial Deadlines)	Oct. 5	Oct. 19	Feb. 1
Last date to drop a course without receiving a grade (also see Financial Deadlines)	Nov. 11	Feb. 10	March 10
Course Withdrawal Period (withdraw from a course and	Nov. 12 -	Feb. 11 -	March 11 -
receive a "W" on the transcript – see note below)	Dec. 5	Apr. 5	Apr. 5

### **Information on Plagiarism Detection**

Every attempt will be made to detect and penalize plagiarism and other forms of academic dishonesty in accordance with university policy.

### **Electronic Device Policy**

Use of electronic devices is permitted only to the extent that it doesn't interfere with the concentration of other students, faculty and TAs.

### **Attendance Policy**

Attendance is not mandatory, recorded or marked. Students, however, should note that consistent attendance is in their best interests. Lectures often go beyond the textbook's coverage and are useful in facilitating exam performance and comfortable progress on one's thesis project.

### **Academic Integrity for Students**

York University takes academic integrity very seriously, please visit <u>an overview of Academic</u> <u>Integrity at York University</u> from the Office of the Vice-President Academic. The following links will assist you in gaining a better understanding of academic integrity and point you to resources at York that can help you improve your writing and research skills:

- Information about the Senate Policy on Academic Honesty
- Online Tutorial on Academic Integrity
- Information for Students on Text-Matching Software: Turnitin.com
- <u>Beware! Says who? A pamphlet on how to avoid plagiarism</u>
- <u>Resources for students to help improve their writing and research skill</u>

### **Test Banks:**

The use of test banks is not permitted in this course and may be considered a potential breach of academic honesty. This includes but is not limited to buying or selling test banks.

# **Electronic Devices during a Test/Examination:**

Electronic mobile devices of any kind are not allowed during a test or examination. Students are required to turn off and secure any electronic mobile device in their bag which is to be placed under the chair while a test/exam is in progress. Any student observed with an electronic devise during a test/exam may be reported to the Undergraduate Office for a potential breach of Academic Honesty.

### Academic Accommodation for Students with Disabilities:

While all individuals are expected to satisfy the requirements of their program of study and to aspire to do so at a level of excellence, the university recognizes that persons with disabilities may require reasonable accommodation to enable them to do so. The <u>York University</u> <u>Accessibility Hub</u> is your online stop for accessibility on campus. The <u>Accessibility Hub</u> provides tools, assistance and resources.

**Brief Policy Statement**: York University shall make reasonable and appropriate accommodations and adaptations in order to promote the ability of students with disabilities to fulfill the academic requirements of their programs.

The nature and extent of accommodations shall be consistent with and supportive of the integrity of the curriculum and of the academic standards of programs or courses. Provided that students have given sufficient notice about their accommodation needs, instructors shall take reasonable steps to accommodate these needs in a manner consistent with the guidelines established hereunder.

For Further Information please refer to: <u>York University academic accommodation for students</u> with disabilities policy

### **Course Staff**

Paul Kohn's current research interests centre on stress and coping, social support and emotional palliation. Previous work has been on cognitive consistency, attitude change and persuasion, authoritarianism and rebelliousness, factors in drug and alcohol use, stimulus-intensity modulation and the therapeutic potential of stand-up comedy training for the mentally ill. His statistical experience beyond the usual (t-tests, ANOVA, correlation and regression, chi-square) includes exploratory factor analysis, parallel analysis, path analysis, confirmatory factor analysis, structural-equation modeling, hierarchical log-linear analysis, and logistic regression. In terms of research design, most of his work has been correlational, including test development and validation, but he has experience with experimentation. Notable areas of *inexperience* include qualitative research (beyond content analysis where he does have experience) and work with children.

Massimo Di Domenico's research interests are broadly focused on the romantic relationships of adolescents. Specifically, his work looks at the occurrence and cause of dating violence during this period of development in normative, high risk, and clinical populations through a variety of theoretical contexts (ecological, individual, cognitive). His statistical experience includes the usual set of analyses (t-tests, ANOVA, correlation and regression, chi-square) as well as more advanced techniques such as logistic regression and multiple regression. While not an expert, he also has experience with structural equation modelling, exploratory factor analysis, and qualitative analysis. Most of his research has used multiple regression.

Meaghan McManus's research interests are focused in visual perception, navigation, and the vestibular system. Her work uses virtual reality (Oculus Rift, Large Edgeless Graphics Display (EGG)) to look at how gravity effects spatial updating, such as changing vestibular and visual sensitivity, and interpreting optic flow on different parts of the visual field. Her goal is to better understand spatial updating changes in low gravity. She also has some research experience with spatial memory and in the perceived intelligence of a human figure. Her statistical experience includes t-tests and ANOVA. Most of her research uses repeated measures but is familiar with other types of ANOVA. She has some limited experience with other forms of regression and exploratory factor analysis. Meaghan is also familiar with various programming and statistical languages --Python (Vizard), C# (Unity), and R (R studio), as well as SPSS.

#### E-mail Etiquette

The Undergraduate Director of the Department of Psychology, Faculty of Health has requested that Course Directors include a statement on e-mail etiquette in their course outlines. To me, the key issue in student-faculty communication is clarity. If Massimo, Meaghan or I misunderstand what you compose, we can't respond appropriately. This would likely result in a two- or three-round exchange of e-mails in which we attempt to understand so that we can respond appropriately and you attempt to clarify.

You can help the process along by taking the following measures in the first place:

- 1) clearly stating your general purpose in the subject line and including reference to the course;
- 2) keeping your message clear, brief and on point;
- 3) including clear reference to the response you expect, e.g. approval or disapproval of a change of topic for your research project;
- 4) avoiding use of abbreviations and acronyms of the kind commonly used in texting or social media, e.g. LMFAO (the problem being I don't know them all);
- 5) identifying yourself by full name. (Your first name may not be unique in the course list.)

If you want more detailed suggestions on e-mail etiquette, "industrial strength" ones, which would be suitable for post-graduation career purposes, you could consult the following source:

http://www.businessinsider.com/email-etiquette-rules-everyone-should-know-2014-9?op=1

### **Course Materials Copyright Information:**

These course materials are designed for use as part of the PSYC 4170 6.0A course at York University and are the property of the instructor unless otherwise stated. Third party copyrighted materials (such as book chapters, journal articles, music, videos, etc.) have either been licensed for use in this course or fall under an exception or limitation in Canadian Copyright law.

Copying this material for distribution (e.g. uploading material to a commercial third-party website) may lead to a violation of Copyright law. <u>Intellectual Property Rights Statement</u>

#### **Course Schedule:**

Course Orientation: Sept. 14, 2016

<u>Please be sure to secure the following computer accounts by Sept. 21, 2016: FAS computer</u> <u>account and Passport York account.</u>

*<u>Topic 1: How to get going and why bother</u>* (Sept. 21, 2016; academic integrity certificate due)

Assigned reading: Cozby & Rawn, Chapters 1 and 2

*<u>Topic 2: Ethical issues in behavioural research</u> (Sept. 28, 2016; PsycINFO assignment due)* 

Assigned reading: Cozby & Rawn, Chapter 3

*<u>Topic 3: Psychological measurement</u>* (Oct. 5, 2016; status report due)

Assigned reading: Cozby & Rawn, Chapters 5 and 7

Topic 4: The experimental method (Oct. 12, 2016; Tri-Council ethics certificate due)

Assigned reading: Cozby & Rawn, Chapters 4 and 8 to 10

*<u>Topic 5: Writing it up</u>* (Oct. 19, 2016)

Assigned reading: Cozby & Rawn, Appendix A

*<u>Topic 6: Choosing statistical methods</u>* (Oct. 26 (first draft of proposal due); Nov 2; Nov. 9, Nov. 16, 2016)

Assigned reading: Cozby & Rawn, Chapters 12 and 13, Appendix B

Topic 7: Sampling: Whom and how many? (Nov. 23, 2016; final draft proposal due)

Assigned reading: Cozby & Rawn, Chapters 7 and 13

Topic 8: Off-beat designs for special circumstances (Nov. 30, 2016; Ethics Form 2, due)

Assigned reading: Cozby & Rawn, Chapter 11

Topic 9: Computer analysis of data with SPSS Windows (Lab TBA; Jan. 11, 18; Feb. 1, 8, 2017)

Assigned reading: TBA, if any

In Class Final Exam: (Location TBA; Jan. 25, 2017)

Student Project Reports and Problem Clinics: Feb. 15; Mar. 1, 8, 15, 22, 29, Apr. 5, 2017.

Due date for final reports: April 5, 2017.