

**PSYC 302: Advanced Research Methods
- Winter 2020**

Wednesday 10:00 – 11:20

Friday 8:30 – 9:50

Dupuis 217

Instructor: Dr. Tom Hollenstein (tom.hollenstein@queensu.ca) Craine 220

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I assume you already have a good grasp of univariate methods (e.g., t-tests, correlations) and issues so that we may delve into the issues that arise when you need to analyze two or more dependent and/or independent variables. After covering the basics of data cleaning and reduction, we will cover each of the three major multivariate methods: factor analysis, MANOVA, and regression. These three are mathematically related to each other and most other techniques can be understood as variations of these three. Weekly labs will focus on SPSS procedures as well as clarify issues from lecture and the homeworks.

Although statistics are based on mathematical formulas that represent the relationships among variables, the intent of this course is to focus on statistics as a means of principled argument (Abelson, 1995). We use statistics to make inferences about the true nature of the world, to answer research questions, to test theories. Hence, the goals of the course are to make sure that you walk away understanding the **conceptual underpinnings** of each technique, the **SPSS procedures** necessary to conduct these analyses, and the skills to be able to critically **interpret** your own results and the claims of the research you encounter throughout your careers. Thus, this not a course of memorization but training in how to be an effective researcher.

A few other things for your consideration:

1. The range of expertise in the class is broad. I will aim for the middle level. Thus, advanced students may be interested in more detail and novice students may struggle a bit. That is the nature of such a course as this. However, I have always felt like I could take one introductory stats course each year and still get something out of it. Which leads me to...
- 2.

different one. Again, 5 points for adhering to each of the 4 criteria for a total of 40 points, but this time minus 40 points for not submitting the peer critique on time. Your final proposal will be a five page, double-spaced proposal, which will be graded by similar but more detailed criteria (rubric will be posted on onQ) but the TAs will apply letter grades. We will spend at least three lectures covering the art of proposal writing and there will be research proposals of various sizes, lengths, and purposes for you to peruse. The only way to learn how to write a particular form is to read that form – I am guessing that almost none of you have ever read a research proposal.

Grading

Lab Quizzes (best 8 x 10 points each) =	80	20%
Proposal 1 =	20*	5%
Proposal 2 =	40**	10%
Final Proposal =	80	20%
Midterm Exam (80 points) =	80	20%
Final Exam (100 points) =	<u>100</u>	<u>25%</u>
	Total = 400 points	100%

***Note: -20 points if you do not submit peer feedback on Proposal 1 by deadline.**

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Academic Integrity

Academic Integrity is constituted by the six core fundamental values of honesty, trust, fairness, respect, responsibility and courage (see www.academicintegrity.org). These values are central to the building, nurturing and sustaining of an academic community in which all members of the community will thrive. Adherence to the values expressed through academic integrity forms a foundation for the "freedom of inquiry and exchange of ideas" essential to the intellectual life of the University (see the Senate Report on Principles and Priorities: <http://www.queensu.ca/secretariat/policies/senate/report-principles-and-priorities>).

Students are responsible for familiarizing themselves with the regulations concerning academic integrity and for ensuring that their assignments conform to the principles of academic integrity. Information on academic integrity is available in the Arts and Science Calendar (see Academic Regulation 1: <http://www.queensu.ca/artsci/academic-calendars/regulations/academic-regulations/regulation-1>), on the Arts and Science website (see <http://www.queensu.ca/artsci/academics/undergraduate/academic-integrity>), and from the instructor of this course. Departures from academic integrity include plagiarism, use of unauthorized materials, facilitation, forgery and falsification, and are antithetical to the

Extenuating Circumstances

Queen's University is committed to providing academic consideration to students experiencing extenuating circumstances that are beyond their control and are interfering with their ability to

