PSYC 3000 B : DESIGN AND ANALYSIS IN PSYCHOLOGICAL RESEARCH

Instructor	Yan Liu
Term	Fall/Winter 2023-2024
Course Delivery	In Person
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COURSE DESCRIPTION/INSTRUCTOR'S STATEMENT

In this course, you will learn about statistics in the contexts of social sciences and psychology, including research design, descriptive and inferential statistics, sampling distributions, hypothesis testing, data visualization and a variety of statistical techniques including t-tests, analysis of variance, correlation, regression, and chi-square tests. This course will prepare you for more advanced courses in quantitative methods. However, you do not need to be a math whiz to succeed in this course!

This course is designed to provide practical experiences that you can apply to your future research work. During class, you will have many opportunities to work as a group and engage in hands-on data analysis activities. The skills that you will have by the end of the course include:

- Basic understanding on research design (e.g., experimental, observational, mixed methods)
- Be able to visualize data
- Apply fundamental statistical methods and interpret the results
- Conduct statistical analysis using SPSS or Jamovi
- Apply the APA publication format in your assignments and project reports

EVALUATION (SUBJECT TO CHANGE)

The final grade will comprise:

1. Lab activities (data analysis using SPSS or Jamovi)
2. Assignments
3. On-line quizzes
4. Open-book exam
5. Group project

TEXT

Howell, D. C. (2017). Fundamental statistics for the behavioral sciences (9th Ed.). Cengage Learning. (Note. Both the paper copy of the book or e-book are available.)

Supplementary readings will also be provided.

The **SPSS** statistical software used in this course is available for free at: https://carleton.ca/its/all-services/computers/site-licensed-software/spss/

Jamovi is a version of R that looks like SPSS and can be downloaded for free from https://www.jamovi.org/download.html