PSYC 5410: FOUNDATIONS OF THE GENERAL LINEAR MODEL

Course	PSYC 5410: Foundations of the General Linear Model
Instructor	Andrea Howard
Term	Fall 2024
Email Address	andrea.howard@carleton.ca
Office Location	SSRB-314-D
Office Hours	TBD

COURSE DESCRIPTION/INSTRUCTOR'S STATEMENT

This course is intended to provide students with a foundational orientation to the general linear model, demonstrating typical approaches using correlation, regression, and analysis of variance (ANOVA). Topics include, but are not limited to, variance decomposition and expected values, means and mean differences, models with covariates, sampling distributions and hypothesis testing, standard error and confidence intervals, graphical data displays, and model assumptions and diagnostic techniques.

In class and during weekly TA-led tutorial sessions, students will practice data skills in the R software environment including, but not limited to: running linear models, data management, graphical displays of data, and simulating data.

EVALUATION

Classes will meet in person twice per week. Lectures include software demonstrations and student participation. Every effort will be made to record and post lectures on Brightspace. A TA-led in-person lab session will also take place weekly.

Course evaluation will be as follows:
40% Problem sets (5 assignments worth 8% each)
25% Midterm exam (10%: In-person written test; 15%: Take-home test)
25% Final exam (10%: In-person written test; 15%: Take-home test)
10% In-class one-question quizzes (Best 15 out of at least 20 quiz opportunities)

TEXT

Open access recommended readings will be made available in each topic module