

## PSYC 5411: EXTENSIONS OF THE GENERAL LINEAR MODEL

<b>Course</b>	PSYC 5411: Extensions of the General Linear Model
<b>Instructor</b>	Andrea Howard
<b>Term</b>	Winter 2026
<b>Email Address</b>	andrea.howard@carleton.ca
<b>Office Location</b>	SSRB-314-D
<b>Office Hours</b>	TBD

### COURSE DESCRIPTION/INSTRUCTOR'S STATEMENT

This course builds on foundations covered in PSYC5410 and is intended to provide students with exposure to advanced techniques used in the general linear model. Topics include, but are not limited to, post-hoc tests and multiple test correction, hierarchical model building and strategies for variable selection, interactions with continuous and categorical predictor variables, regression artifacts, power and effect size, mediation, and a brief introduction to models with random effects.

In lecture 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