

## PSYC 5411 W – ADVANCED REGRESSION

<b>Course</b>	PSYC 5411 W: Advanced Regression
<b>Instructor</b>	Dr. Andrea Howard
<b>Term</b>	Winter 2022
<b>Course Delivery</b>	In Person
<b>Email Address</b>	<a href="mailto:andrea.howard@carleton.ca">andrea.howard@carleton.ca</a>
<b>Office Location</b>	SSRB-314-H
<b>Office Hours</b>	TBD

### COURSE DESCRIPTION/INSTRUCTOR'S STATEMENT

This course expands on the work begun in PSYC 5410 and extends concepts from ANOVA to the broader case of regression analysis. Topics include correlation, simple and multiple regression, model building, best practices in hypothesis testing, power and effect size, coding categorical predictor variables, testing interactions (moderation), and mediation analysis.

In weekly TA-led tutorial sessions, students will practice data skills in the R software environment including, but not limited to: running correlation and regression analyses, 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. Lectures will be recorded and posted on Brightspace. An in-person lab session will also take place weekly.

Course evaluation will be as follows:

- 50% Online quizzes/problem sets (Students' best 5 out of 6 assignments count for 10% each)
- 25% Midterm exam
- 25% Final exam

### TEXT

Darlington, R. B., & Hayes, A. F. (2017). Regression analysis and linear models: Concepts, applications, and implementation. New York: Guilford Press.

*An e-copy of this book is available in the library for up to 3 simultaneous users.*