

## COURSE NAME AND CODE

<b>Course</b>	CGSC 5002 Experimental Research in Cognition
<b>Instructor</b>	John Logan
<b>Term</b>	Fall
<b>Email Address</b>	john.logan@carleton.ca
<b>Office Location</b>	DT 2007
<b>Office Hours</b>	TBA

## COURSE DESCRIPTION/INSTRUCTOR'S STATEMENT

The topic of CGSC 5002 will be the process of using empirical data to formulate theories of cognition. The focus will be broadly methodological, including criticisms of current research practices and how to make them better, as well as theory development in psychology. The course will be in seminar format delivered synchronously via Zoom. Topics will include

1. Making sense of findings in psychology: Common misconceptions
2. Introduction to probability, frequentist, and Bayesian statistics
3. p-hacking, HARKing, and publication bias
4. Preregistrations and Registered Reports
5. Effect sizes versus significance
6. Power analyses for various research designs
7. Randomized Controlled Trials
8. Meta-analyses
9. Doing reproducible research: Reliability and validity
10. Psychology as a robust Science: What makes robust inferences; triangulation and causality; theory and measurement
11. And possibly other relevant topics...

## EVALUATION

- 1) 1 class presentation (40%), and 2) a 3500-word research proposal paper (60%)

## TEXT

Baddeley, Eysenck, & Anderson (2020). Memory (3rd edition), London: Psychology Press. Paperback version: ISBN 9781138326095 (<https://www.routledge.com/Memory-3rd-Edition/Baddeley-Eysenck-Anderson/p/book/9781138326095>)

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