PS 211: Exam 3 Review Sheet

Exam 3 will focus on content from Lectures 10 - 13, though may also refer to concepts from earlier in the course. Please note that this is not a comprehensive list of what may be on the exam, but is intended to help guide your studying. You may bring a single 8.5 x 11" piece of paper with hand-written notes (both sides). You will ***not*** need a calculator for the exam.

Important concepts from earlier in the course

Standard error: What it is and when we use it
Standard deviation vs. standard error
p values and alpha levels
Point estimate & interval estimates
Confidence intervals
Distributions of scores vs. distributions of means
Null vs. research/alternative hypotheses
Directional vs. non-directional hypotheses
One-tailed vs. two-tailed tests
Type I & Type II Errors
Effect size & Cohen's *d* (will review again in review session)
Power
When to use each type of statistical test

Lecture 10: Paired-samples *t* tests

When do you use a *t* test? Which *t* test should you use in which situation?
Within- vs. between-subjects designs: advantages & disadvantages of each
What is a distribution of mean differences?
Steps of a paired-samples *t* test
Determining the mean and standard error of the null distribution
Computing the *t* statistic
Confidence intervals & effect sizes for paired-samples *t* tests

Lectures 11 & 12: Independent-samples *t* tests

What is a distribution of differences in means?
Steps of a independent-samples *t* test
Pooled variance: What is it and how do we compute it?
Computing the standard error for an independent-samples *t* test
Computing the *t* statistic
Confidence intervals & effect sizes for independent-samples *t* tests

Lecture 13: Reporting results in APA style

What is APA style and why do we use it?
Reporting *z* and three different types of *t* tests in APA style