Webassign Homework 8 Study Guide

Learning Objectives:

Tests of Hypotheses:
1. Given a study objective, determine whether significance testing is appropriate.
2. Given a study objective, choose appropriate null and alternative hypotheses, including determining whether the alternative should be one-sided or two-sided.
3. Given a study and p-value, explain in context that p-value is a probability of getting a sample statistic as extreme or more extreme that what was seen in the sample given, that the null hypothesis is true.
4. Given a test statistic, calculate a p-value based on the standard normal distribution or t-distribution as appropriate.
5. Given a study, interpret the results of a test of significance in context.
6. Given a study objective, significance level ($\alpha$) and summary statistics, conduct a formal test of significance on a population mean (and a population proportion) by conducting the appropriate steps. (This includes choosing and stating hypotheses, calculating a test statistic, calculating and interpreting the p-value and interpreting the conclusion of the test in context.)
7. Explain the relationship between a confidence interval and a two-sided hypothesis test.
8. Given results from a hypothesis test, comment on the impact of sample size and the practical importance.

Relevant Reading:
Chapter 9 pgs 333
Chapter 12 pgs 495 – 504, 511 – 521, 533-537
Chapter 13 pgs 551-580 not including HT Module 4 and 5, 585-587

Suggested practice problems:
12.1, 12.12, 12.20, 12.26, 12.29a, 12.41, 12.43, 12.45, 12.46, 12.49, 12.72,
12.74,12.84, 12.87, 12.89, 12.94, 12.104, 13.11, 13.16, 13.21, 13.44ab, 13.47a