STAT 301  Final Exam Preparation       Winter 2018

Logistics:
- Mon March 19, 1:10-4:00 or Fri March 23, 10:10-1:00
- Open-book, open-notes, open-anything else that I’ve provided or that you prepare yourself
- Bring calculator, no computer use

- Partially cumulative
  - Roughly two-thirds on material since last exam
    1. Mon Feb 26 – Wed March 14
    2. HW10 – 12
    3. Quizzes 14 – 18
  - Roughly one-third on (bigger ideas from) earlier material

- Extra office hours
  - Fri March 16, 9-10am
  - Mon March 19, 9-11am
  - Tues March 20, 1-3pm
  - Thur March 22, 1-3pm

- Materials available online
  - This (and previous) exam preparation document
  - Midterm exam solutions
  - Day-by-day notes
  - HW, quiz solutions

Overview (since last exam):
We have analyzed studies that involve a quantitative response variable, both with comparing two groups and a single quantitative variable. We have again used inference methods based on simulation/randomization and also approximate methods based on the \( t \)-distribution.

Outline (since last exam):
- Sampling distribution of sample mean, Central Limit Theorem for Sample Mean, standard error of sample mean
- One-sample \( t \)-interval, one-sample \( t \)-test
- Simulating randomization test for comparing two groups with quantitative response
- Two-sample \( t \)-test for comparing means
- Two-sample \( t \)-interval for difference in population means
- Matched pairs design, simulating randomization test for paired data
- Paired \( t \)-test, paired \( t \)-interval

Advice:
- Organize notes for efficient retrieval of information/formulas
- Don’t plan to use text, notes too much
  - Prepare as if exam were closed book/notes
  - Focus on understanding, not memorization
• Be prepared to think/explain/interpret
  o Do not just plug into formulas
  o Be ready to explain process of how you would do calculations
• Take advantage of information provided
  o Perhaps including output
• Relate conclusions to context
• Practice
  o Work through solved examples at end of text chapters
  o Re-work in-class investigations, examples
  o Re-work HW questions
  o Re-work quiz questions
  o Re-work previous exam questions
  o Work through sample exam questions