

NOTES FOR THE WEEK OF NOV 20 TO NOV 27

NOTES ABOUT OFFICE HOURS, AND ABOUT REVIEW SESSION FOR FINAL EXAM:

- My office hours on *Wed, Nov 22* are *cancelled* but Clayton Schupp will have his (Wed, 12:10-1:00).
- On *Mon, Nov 27*, I will have *two added hours*, from 1 – 4:30pm, instead of the usual 3-4:30.
- I will have additional office hours for the remainder of the quarter, and will send an email telling you when they are, as well as post them in the Weekly Notes for each of the remaining weeks.
- There will be a question and answer session for the final exam on *Thurs, Dec 14*, the day before the exam. Time and location to be announced. Remember that the final exam is cumulative.

As explained in the notes last week, for the rest of the course we will cover **sampling distributions**, **confidence intervals** and **hypothesis tests** for five situations. Last week, we covered **sampling distributions** and **confidence intervals** for *one population proportion* and the *difference in two population proportions*. This week we are covering **sampling distributions** and **confidence intervals** for *one population mean* and the *population mean for paired differences*.

Here is what you should know how to do this week:

- Be able to distinguish between situations involving the mean for paired differences, where the parameter of interest is μ_d , and the difference in means for two independent samples, where the parameter of interest is $\mu_1 - \mu_2$. (See pgs 362-363, pgs 445-447; exercises 9.66, 9.69a-c, 11.6, 11.69b)
- Find the sampling distribution for one sample mean; know the conditions required for it to hold, know how to use it to answer probability questions about sample means, understand the difference between the original standard deviation, the standard deviation of the sample means and the standard error of the mean. (Section 9.6 and exercises 9.61, 9.64ab)
- Find the sampling distribution for the sample mean of paired differences, and know the same additional things about it as in the previous bullet for one sample mean. (Section 9.7; exercise 9.69d-f)
- Understand how to use confidence intervals to guide decisions (Section 10.5; exercise 10.57cd)
- Know the situations for which we will find confidence intervals for means. (Section 11.1)
- Know how to find t^* multipliers, using Table A.2. (pgs 450-451; exercise 11.21ab; practice with exercise 11.23ab – not assigned, but answers in book)
- Know the various parts of the confidence interval formula for a mean, what changes with sample size, what is fixed and what depends on the sample data, etc. (pgs 452-453; exercise 11.22)
- Know how to find a confidence interval for one population mean, including what conditions are required for the method to work. (pgs 452-456, Lesson 2 on pgs 460-461; exercise 11.21ab, 11.32)
- Know how to interpret a confidence interval for a mean (pgs 457-458; exercise 11.32b)
- Know how to find and interpret a confidence interval for the mean of paired differences (Section 11.3, exercises 11.40, 11.69)

NOTE:

Because of the holiday some of you may be away from your computer, so THERE IS NO CYBERSTATS work for this week. There are two relevant applets on the CD. They are discussed in the book (in Sects 9.11 and 11.6). Play with those, and if you don't have computer access you can at least read about them.

Reading and Study Assignment for this week:

Book Chapter and Sections	Focus on:
Chapter 9: Sampling distributions, Sections 9.6, 9.7, 9.11 (applet)	Read all material, and focus on the skills listed above as well as the material assigned for homework.
Chapter 10, Section 10.5 (if you didn't read it last week)	
Chapter 11, Sections 11.1, 11.2, 11.3, 11.6 (applet)	

Exercises to hand in: Ch 9: #61, 64ab, 66, 69; Ch 10: #57cd; Ch 11: #6, 21ab, 22, 32, 40, 69