STAT 131     FALL 16

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Office Hours: 1:00-1:50 pm; M,W,F

Mission Statement: This course is designed to be a rigorous introduction to concepts in statistics as well as a practical application of some statistical procedures. Upon successful completion of this course, the student should have a developing understanding of some of the central ideas in statistics and an appreciation of the role statistics has in medical research.

Behavior: Rudeness will not be tolerated. Rude behavior, including but not limited to arriving late, leaving early, and talking out of turn, will result in one warning. If the behavior continues, 5 points per infraction will be subtracted from the offender’s point total.

Text: Biostatistics for the Biological and Health Sciences; Triola and Triola

Lessons: Overview(Chapter 1, 2.1), 2.3-2.7, 9.1-9.2, 3.1-3.4, 3.6-3.7, 4.1-4.2, 5.1-5.5, 6.1, 6.4, 7.1-7.2, 7.5 (time dependent)

Grading: Your course grade will be determined by your average homework/quiz score (HW), and the exams according to the following weights:

- HW 10%
- Exam I (Wednesday, September 14) 21%
- Exam II (Wednesday, October 12) 21%
- Exam III (Wednesday, November 9) 21%
- Final (Wednesday, December 14: 11:30am-1:30pm) 27%

Notes:

(a) There will be weekly homework assignments as well as in class quizzes. **No late homework accepted.**

(b) Your ten highest homework/quiz scores will be used when calculating the course grade.

(c) A calculator is required for this course.

(d) ± grades will be given. For a given grade range, the lower two percentage points will receive a “−” (not including “F”) and the upper two percentage points will receive a “+” (not including “F” or “A”).
General Education Outcome this course aligns with: Students will be able to reason analytically and quantitatively at an algebraic level.

Course outcomes:

- Demonstrate knowledge of Central Limit Theorem;
- Demonstrate knowledge and use of random variables, means and variances, sampling distributions;
- Define a p-value;
- Set up null and alternative hypotheses, given alpha and a p-value, decide what to do with the null hypothesis; After making the decision state a conclusion in terms of the problem;
- Interpret a confidence interval;

Notes:

1. Defining a p-value maps to reasoning analytically and quantitatively.
2. Interpreting a confidence interval maps to reasoning analytically and quantitatively.
3. Set up null and alternative hypotheses, given alpha and a p-value, decide what to do with the null hypothesis maps to reasoning analytically and quantitatively.