

Math 132, Fall 2016
Elementary Statistics

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Teaching Apprentice: Taryn Johnson

Meeting times: TR 8:50-10:10 am, ESC 109

Office hours: Mon 1-2p; Wed 3-4p; Thurs 3-4p; or by appointment

Problem Session: TBA

Text: *Mind on Statistics*, 4th Ed., Utts & Heckard.

Course overview: This course provides an introduction to statistics – the study of how to carefully collect, responsibly present, and rigorously draw inferences from data.

Statistics is a foundational tool in many academic disciplines, from the physical sciences to psychology to economics, sociology, political science, etc. Doing statistics responsibly is essential to drawing correct conclusions in other fields. In addition to this, statistics is an important field of mathematics which has been studied for hundreds of years.

Statistics also plays an important role in daily life, through its use in politics, criminal justice, advertising, economics, finance, journalism, etc. It is mathematics for citizenship.

Our course will be structured around the following questions:

- How do we summarize and present numerical data in an enlightening and responsible way?
- What goes into the careful collection of representative, unbiased data?
- How do we use the incomplete representation of reality given by sample data to form good estimates of true quantities in the real world? How do we quantify the reliability of our estimates?

- How can we draw inferences from data? When can we use the incomplete picture provided by sample data to answer a question, and how reliable will these answers be?
- What are the pitfalls of poorly-done statistics? How do we avoid them, and how can we assess the likely veracity of statistical claims?

Logistics: We will have twice-weekly problem sets, three midterms and a final exam. Attendance / class participation will occasionally be assessed with short reading quizzes.

Attendance / Class Participation:	10%
Exams:	20% each; lowest score is dropped
Problem sets:	30%

Problem sets should be neat, clear and STAPLED. You are welcome and encouraged to collaborate with others on the problem sets, but you must turn in an independent write-up of your solutions. Please indicate your collaborators on your write-up. The two lowest-scoring problem sets (one Tuesday, one Thursday) will be dropped. They are always due at the start of class. Late homework is not accepted.

Important dates:

Midterm exams:	Thurs Sept 19, 7-9p Thurs Oct 27, 7-9p Thurs Dec 1, 7-9p
Final exam:	Saturday, Dec 17, 9a-12p

Students with Disabilities:

It is the policy of Wesleyan University to provide reasonable accommodations to students with documented disabilities. Students, however, are responsible for registering with Disabilities Services, in addition to making requests known to me in a timely manner. If you require accommodations in this class, please make an appointment with me as soon as possible so that appropriate arrangements can be made. The procedures for registering with Disabilities Services can be found at <http://www.wesleyan.edu/studentaffairs/disabilities/index.html>.

Please note:

I very rarely give an incomplete or any sort of make-up exam, and do so only for very serious circumstances. Under all circumstances, there is a much better chance I can do something for you if you let me know what is going on ahead of time.

Please be familiar with University policy on cheating and plagiarism, or just be very sure not to do either of those. Ask me if you have questions, and note the homework policy above.