

**Time and Place:** 11 a.m. – 12:15 p.m. TR Evans (Science) 205

**Instructor:** Roger G. Olson, Ph.D.

**Office:** Science 018    **Telephone:** x6295    **E-mail alias:** rogero

**Office Hours:** Talk with me before or after class, or make an appointment

### TEXT AND SOFTWARE

Henry R. Gibson, *Elementary Statistics*, 2nd Edition, Kendall/Hunt Publishing Company, 1998

We will need to use some software later in the course for the more complicated inferential calculations. I will apprise you of the software when the need arises, but these will include SPSS, as well as some web-based programs such as VassarStats – see URL at end of this syllabus.

### COURSE OBJECTIVES AND DESCRIPTION

The first course in this sequence dealt with *probability*, or the mathematics of uncertainty. Probability theory applied to real data using a tool kit of special techniques yields the discipline of *statistics*, the subject of this course. Statistics has two main branches: the summarization and classification of data, known as *descriptive* statistics, and the analysis of data, specifically making “educated guesses” about an unknown *population* from a known *sample*. This second branch is called *inferential* statistics and is the main topic of this course.

### EVALUATION AND GRADING

Your course grade will be based on four criteria: Two examinations, homework assignments from each covered chapter, and a comprehensive final examination. Attendance and participation will affect your final grade in borderline cases (+/- 2% of final grade). These criteria will be weighted in the following manner:

Exams: 60%	Homework: 10%	Final Exam: 30%	Participation: 2%
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- The two in-semester exams are not *intentionally* cumulative, however, in any kind of mathematics you must keep in mind some previous facts and concepts before you can go on. One exam will be given before mid-term break. The exams will consist mostly of computational problems, with a few definitions. I will provide the necessary formulas with the exam so you don't have to memorize these.
- The final exam is cumulative and will be given **Thursday May 3, 2012 at 10am.**
- Homework assignment due dates will be announced in class. **LATE ASSIGNMENTS WILL BE PENALIZED 10 PERCENT FOR EACH CLASS DAY LATE.** Your assignments must be NEATLY DONE, and all work must be shown. Multiple pages must be STAPLED, and each page must have a smooth edge - pages torn out of spiral binders are NOT ACCEPTABLE.
- I will collect all homework, however only selected problems will be graded. The more problems that you work, the better you will learn the material.

## GRADING SCALE FOR FINAL COURSE LETTER GRADE

A	93-100
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	60-66
F	< 60

### HOMEWORK ASSIGNMENT LIST – answers to odd numbered problems in Appendix H

<u>Chapter</u>	<u>Problem Numbers</u>
1	7, 8, 9
2	pp. 52 - 55: 2 -15 + <b>histogram for #8</b>
3	pp. 93 - 96: 9, 11, 14, 21
4	pp. 133 - 136: 2 - 18
5	pp. 156 - 157: 1 - 12
6	pp. 178 - 179: 1 - 10
7	pp. 222 - 225: 1 - 18
8	pp. 254 - 256: 1 - 11
9	p. 308: 6 - 10 (Use software for the correlation-regression calculations.)
10	pp. 363 - 367: 6 - 9, 14
11	pp. 410 - 417: 2 - 17 (+ <b>do a <u>confidence interval</u> for #8</b> )

### HELPFUL WEBSITE

VassarStats: <http://faculty.vassar.edu/lowry/VassarStats.html>