



STATISTICS I

Monday & Wednesday 8:00-9:25 AM Classroom: BSC 110

DR. SALLY RASKOFF

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Office: BSC 111b Student Drop-In Hours (aka Office Hours): M-Th 9:30-10:30 am & by appointment

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COURSE DESCRIPTION:

This is a course on statistics and the scientific method of answering interesting and important questions about the social world. Through this course, you will better understand how social scientists use statistics to test hypotheses and describe social reality and how the media report these findings. We will use calculators to familiarize ourselves with the underlying assumptions of certain statistical techniques. We will use computer software to assist in analyzing data sets. By the end of the course, you will be able to (1) evaluate and calculate the appropriate use of statistics and (2) interpret the meaning of research results presented in your own work, popular press articles, and scholarly research.

This course is WEB ENHANCED, which means that there are resources for the class online in the Etudes system. Log into the Etudes system for this course using the information provided in class to use these resources (go to <http://www.lavc.edu/virtualvalley/index.htm>).

REQUIRED BOOKS & EQUIPMENT:

Levin, Jack and James Alan Fox. (2007) *Elementary Statistics in Social Research: The Essentials, 2nd Edition*. Boston: Allyn & Bacon. (Any similar edition of Levin & Fox since 2003 is fine.)

A Calculator (with basic functions including square root) is necessary each & every day in class.

COURSE COMPONENTS:

Exams..... 55 points * 55%

Five exams are scheduled, the first four are worth 10%, the last 15%. Although the exams are not technically cumulative, the material each week does depend on what came before and the third exam is weighted more heavily as it offers an opportunity to demonstrate the student's final understanding of statistical concepts and techniques. All exams consist of application questions; some questions require calculations to be made. More details will be given in class.

Exercises & Homework..... 40 points * 40%

Exercises are worksheets that will be worked on both in and out of class while homework will be assigned for each chapter in the textbook. Both types of assignments are extremely important in developing your understanding of statistical concepts and techniques. Both exercises and homework will be given feedback on a three step scale (✓+=3; ✓=2; ✓-=1). It is important that that these assignments be done *as they are assigned* since we will discuss them in class, it will be difficult to catch up if you fall behind, and they are designed to support your learning of the material. Each chapter's homework is due as scheduled: when we start the next chapter or when we have a quiz.

Attendance and Participation 5 points * 5%

To fully participate in one's learning and get the most out of any class, one must appear in that class and engage in relevant discussion with the professor and one's peers.

Grading: The points for each grading component add up to 100 thus you can estimate your grade at any time during the semester by adding up the points for the work you've done, figure out the total for the work completed at that time, calculate your percentage and use the regular distribution: 90-100 = A; 80-89 = B; 70-79 = C; 60-69 = D; below 59 = F.

SCHEDULE:

Week	Day	Date	Topic	Read	Due on this day
1	M	8/31	Introduction		
	W	9/2	Why Statistics? Basic Concepts	Chapter 1	
2	M	9/7	Labor Day HOLIDAY	Review	
	W	9/9	How can we clearly communicate patterns in human behavior? Data Description: Proportions & Rates	2	(HW:1 optional)
3	M	9/14	Data Description: Frequency Distributions	2	
	W	9/16	Data Description: Graphs	2	
4	M	9/21	Quiz #1	Review 1-2	HW:2
	W	9/23	How similar or different are the things we study? Central Tendency: Mode, Median, & Mean	3	
5	M	9/28	Central Tendency, continued	3	
	W	9/30	Variability: Range, Variance & Standard Deviation	4	HW:3
6	M	10/5	Variability, continued	4	
	W	10/7	Quiz #2	Review 1-4	HW:4
7	M	10/12	Are the things we study unique (or anomalies) or do they really reflect the larger group that we think we're studying? Probability & the 'Normal' Curve	5	
	W	10/14	The 'Normal' Curve continued	5	
8	M	10/19	Samples & Populations: Sampling, Error, Confidence Intervals	6	HW:5
	W	10/21	Sampling continued	6	
9	M	10/26	Quiz #3	Review 1-6	HW:6
	W	10/28	How do we tell if some things are related to other things? Decision Making: Differences between Means	7	
10	M	11/2	Decision Making continued	7	
	W	11/4	Analysis of Variance	8	HW:7
11	M	11/9	Analysis of Variance continued	8	
	W	11/11	Veteran's Day HOLIDAY	Review	
12	M	11/16	Nonparametric Tests of Significance: Chi Square	9	HW:8
	W	11/18	Quiz #4	Review 1-9	HW:9
13	M	11/23	How do we tell the nature of the relationship between things once we establish that there is a relationship? Correlation	10	
	W	11/25	Correlation, continued	10	
14	M	11/30	Regression	11	HW:10
	W	12/2	Nonparametric Measures of Correlation	12	HW:11
15	M	12/7	Nonparametric Measures of Correlation, continued	12	
	W	12/9	Application & Review	Review	All Enrichment
Finals	W	12/16	Quiz #5 (Final) 8:00-10:00 AM	Review 1-13	

If you experience problems with the course, let the professor know in a timely manner: as soon as possible!

Late exams will not be allowed without communication prior to the test date.

Note: Students registered in the Honors section are expected to do additional work – this is explained later in the syllabus. Make sure you are enrolled in the appropriate section!