

Psychology 216: Elementary Statistics, Spring 2010

Class Meetings: Section 3: T-Th 10:30 a.m. -11:45 a.m. in SJ 003

Instructor: Dr. Robert Crutcher, SJ 309, phone 229-1346; email: crutcher@udayton.edu
Office Hrs: T-Th: 11:45 a.m. to 1:15 PM and drop in or by appointment

Texts: Gravetter, F. J., & Wallnau, L.B. Statistics for the Behavioral Sciences. (8th edition). Wadsworth, 2009. ISBN 9-780-495-60220-0

Supplies: A basic pocket calculator with square-root function and that can calculate sums, standard deviations, variances and the like. In general Sharp makes good calculators, as does TI (Texas Instruments). A calculator with a scrolling screen is extremely helpful and much easier to use. You may also find it helpful to have external media for saving files and assignments.

Grading: Approximate distribution of Points

CATEGORY	APPROXIMATE POINTS
Quizzes	TBD
Homework & Computer Assignments	50 points
Midterms	150 points
Final	125 points
Participation	50 points
Total	375 points

Quizzes. Quizzes will be unannounced and will occur at the very beginning of class. **No make-ups on quizzes.**

Homework/Computer Assignments. Homework assignments are 5 points each. At the end of the semester I will total your homework points and convert your total score to a 50-point scale. For example if the total homework points possible were 45 and your total were 41 points, then: $(41/45) \times 50 = (.911)$ of the 50 points is 45.5 points for homework. Homework is due in class at the beginning of class. Homework brought in late will not be accepted. That means if you walk into class late with your homework assignment, you won't receive credit for that homework. Make up policy on homework: **No make-ups on homework assignments.** However, I realize that from time to time things come up in all of our lives that interfere with our responsibilities. You may miss a class because your car breaks down, you have a family emergency, or what have you. Therefore, I will drop your two lowest homework/computer assignment scores. This is meant to take care of any unforeseen situations that occur as well as illnesses and accidents.

Exams: There will be **3 semester** exams worth 75 points each. I will take your 2 highest midterm scores and drop your low score. **You are required to take all 3 exams.** However, in the case of a genuine emergency if you are not able to take one of the midterm exams, I will count that exam as your low score. You must, however, contact me **before** the exam concerning your absence or you will receive a zero for that exam and it will count against you, even if you've already taken 2 of the 3 exams. There are no make-up exams. The **final exam** is worth 125 points and will be cumulative.

Participation & Attendance: Your active participation in class will figure in your grade. Bring your calculator to class and be prepared to use it. As I am working problems I will ask all of you to compute sums of squares, means, and so forth and be ready to share them. This keeps us moving forward and gives you immediate, active practice using formulas and applying procedures you're learning.

Goals: To learn, understand, and apply basic statistical methods and principles of experiment design to analyzing behavioral data. I hope this will be an enjoyable and stimulating course for you. By the time you finish, you should feel confident of your skills in applying some basic statistical procedures to analyzing behavioral data as well as understanding which procedures to apply in specific situations. You will also be introduced to using a computerized statistical package, SPSS, the *Statistical Package for the Social Sciences*. In the next course in this sequence, Experimental Psychology (Psychology 217), you will learn additional statistical procedures (e.g. ANOVA using more than one variable), more about how to how to use SPSS to analyze behavioral data properly and a great deal more about how to design, execute, and analyze psychology studies.

I want you to do well in this course. Sometimes students are unnecessarily frightened by statistics. Please don't be. If you put in the work, you *will* eventually understand the material. As a result, you will experience the joy of understanding what you thought was so difficult. When you get frustrated with the material or you don't follow what

I'm talking about in lecture, come see me. I am happy to help. On that score, please feel free to drop by during office hours to talk about the course, life here at the University of Dayton, your plans for the future or whatever other concerns you may have.

I want to emphasize the **importance of keeping up with the material in this course**. The homework is designed to give you the opportunity to practice the statistical procedures that we learn. Put all of your energy into the homework regularly and do the very best job you can on it. Not only will the points for the homework significantly help your grade but regular practice on the homework will help prepare you for the exams far better than re-reading the chapters before an exam.

I strongly encourage you to communicate with me via campus email on the computer system. This is the best way to ensure that if you have a question I will receive it and answer it promptly. My email address is: crutcher@udayton.edu

Course Web Site. There will be some materials on my web site to accompany the course, including links to Powerpoint slides and other materials related to the course. Look for the Psy 216 Statistics link on my site at <http://academic.udayton.edu/robertcrutcher>. You also need to know your login ID and password to use your Novell account. For computer assignments, I will put files into a Novell folder for the class.

Schedule. The schedule of topics and exam dates is **TENTATIVE**. That means that the exam dates as well as the topics likely may change. It is your responsibility to keep track of these changes.

Tentative Schedule: Introductory Statistics, S2010

Dates		Topic	Reading
wk1	01-05-10	Foundations/Scales/Samples and Populations	Chapter 1
	01-07-10	Descriptive Statistics: Freq. Distributions, Graphs, Tables	Chapter 2
wk2	01-12-10	Descriptive Statistics and Measures of Central Tendency	Chapters 2 & 3
	01-14-10	Measures of Central Tendency & Variability	Chapter 3 & 4
wk3	01-19-10	Measures of Variability	Chapters 4
	01-21-10	Z-scores – Locating Scores in a Distribution	Chapters 5
wk4	01-26-10	Z scores & Probability	Chapter 6
	01-28-10	Probability and Samples	Chapter 7
wk5	02-02-10	Semester Exam #1	Chapters 1-6
	02-04-10	Introduction to Hypothesis Testing (the z statistic)	Chapter 8
wk6	02-09-10	Introduction to Hypothesis Testing (cont.)	Chapter. 8
	02-11-10	Finish z statistic & introduce Single Sample t statistic	Chapters 8 & 9
wk7	02-16-10	Hypothesis Testing: Finish single sample t statistic and begin independent t statistic	Chapters 9 & 10
	02-18-10	Independent t statistic (cont.)	Chapter 10
wk8	02-23-10	TBD	
	02-25-10	Semester Exam #2	Chapters 7-10
wk9	03-02-10	Midterm Break	
	03-04-10	Midterm Break	
wk10	03-09-10	TBD	
	03-11-10	TBD	
wk11	03-16-10	Introduction to Analysis of Variance (ANOVA)	Chapter 13
	03-18-10		
wk12	03-23-10	ANOVA (cont.)	
	03-25-10		
wk13	03-30-10	TBD	
	04-01-10	Easter Break	
wk14	04-06-10	Repeated Measures ANOVA	Chapter 14
	04-08-10		
wk15	04-13-10	Semester Exam 3	Chapter 14 & 16
	04-15-10	TBD	
wk16	04-20-10	Correlation and Regression	
	04-22-10	Correlation and Regression	Chapter 16
Wk 17	04-29-10	Final Exam: (Thurs - 12:20 to 2:10 p.m.)	Comprehensive