PSYC/CRIM/SOC-341-1S "Understanding Statistical Inference"
Spring 2010 Alternating Saturdays 12:30-3:20PM
Fenton Campus 3 Credit Hours

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Office hours: Flexible to communicate via e-mail, phone, and in-person with students. If you contact me, you will receive a reply in less than 24 hours. I will be at the Fenton site on class meeting days at 11:30am to answer questions, review statistical concepts, and homework problems.

Course Description: The purpose of this course is to give students an introduction to the various topics usually covered in a first course in statistics. The course is designed to develop conceptual and practical understanding of techniques used in descriptive and inferential statistics. The emphasis is on statistical concepts rather than computations.

Course Objectives:
Upon completion of this course, students will be able to:

- Understand, interpret, and calculate basic descriptive and inferential statistics
- Compute, analyze and interpret data using computer software (i. e. Microsoft Excel, SPSS)

Text:
Aaron, A., Aaron, E. N., & Coups, E. J. (2009). *Statistics for Psychology (5th ed.).* Upper Saddle River, NJ: Pearson Prentice Hall, Inc.

Computer Skills Required: Please note that regular use of a computer and a high-speed internet connection is fundamental to your participation in the online portion of this course. The vast array of available online materials makes this course especially rich, and the flexibility of working on the course outside of class hours at your own pace, according to your own schedule, provides numerous opportunities for additional learning and class interaction.

Classroom Respectfulness: Our learning environment will be an active one; therefore, your participation during class is necessary. Participation can be defined by discussing mathematical topics, asking pertinent questions, attentively listening to the instructor and classmates, etc…In order to establish this environment, students must be prepared for class and refrain from cell phone usage (phone calls and texting).

Academic Integrity: "All members of the university community will be honest, do their own work, respect the work of others, and acknowledge information received from other sources. "
Maryville University Student Handbook

Plagiarism is taking the writings, ideas, or thoughts of others and passing them off as one's own original work. You can plagiarize without even using the exact words of the original author. If you paraphrase without crediting it, you are plagiarizing. Although plagiarism is always an offense, not every plagiarist intends to cheat. Students sometimes do not know exactly what kinds of information must be credited

and what need not be. Sometimes writers unintentionally plagiarize through carelessness. They do not take notes properly and do not remember when they are quoting and when they are not (Millward, 1980, p. 414).

Millward, C. (1980). *Handbook for writers: Grammar, punctuation, diction, rhetoric, research.* Holt, Reinhart, & Winston Publishers.

A student can avoid plagiarizing by giving credit whenever he/she uses:

- **another person's idea, opinion, or theory;**
- **any facts, statistics, graphs, drawings – any pieces of information – that are not common knowledge;**
- **quotations of another person's actual spoken or written words; or,**
- **a paraphrase of another person's spoken or written words.**

All suspected acts of plagiarism will be investigated. Consequences for using another's work inappropriately will range from redoing the assignment to failing that assignment to failing the course.

Cheating is considered as any attempt made by a student to intentionally mislead an instructor in the determination of a grade. Any individually written assignments must be expressed in the student's own words and formatting.

Success Tips: It is pertinent for you to attend class and complete your assignments. Completing the assigned homework problems is the best way to SUCCEED in this course. If you need additional help with the problems, contact your instructor. Tutoring and other study aids are available FREE OF CHARGE at the Academic Success Center located in the Lower Level of the University Library. Students can request assistance by calling 529-9228 or e-mailing peertutors@maryville.edu.

Accommodations for Students with Disabilities: The Academic Success Center provides accommodations for students who meet the qualifications of the Americans with Disabilities Act. To obtain services, a student must meet with/provide documentation to the Academic Success Center.

Attendance: It is imperative that students attend the course. One absence (excused or unexcused) is permitted. More than one absence will result in a failing grade for the course. Previous students have agreed on the imperative nature of attending class.

Homework Assignments: The problems assigned for homework are designed to help you learn the material presented in class and in the text. ****Note:** the assignment problems are from Section II of each chapter. The answers for the problems in Section I are can be found in the back of your text.** Homework answers will be posted on D2L for you to check your work. You will have "study buddies" to communicate through D2L regarding homework problems.

Quizzes: All quizzes will be posted on D2L. You will need your Maryville e-mail account to access this system. Quizzes are due on Tuesdays at 7:00am. Quiz problems will mirror homework assignments. You will be given 2 attempts to take each quiz. Also, you will be given a time limit to complete each quiz.

D2L Discussions: You will be participating in statistical topic discussions as an extension of information covered during class and in your text. Topics for discussion will be posted by your instructor the day

following our class meeting. Students should also utilize D2L as a discussion tool regarding homework problems from the test.

Exams: Exam problems will be based upon the homework problems and problems completed during class. Problems will be randomly selected from a database; therefore, each student's exam will be unique. Students will ONLY be given an allotted time to complete the exam. Exams will be available for a 48-hour window of time through D2L so plan accordingly.

Writing Assignments: Due to the limited amount of in class meetings, students will need to complete several independent writing assignments. It is important that you can communicate about statistical topics. Handwritten papers WILL NOT receive any credit. Papers should be double-spaced using a 12-point font, and approximately 3 pages in length. Students will be graded on content and are expected to proofread for grammatical and spelling errors. If information is obtained from another source, it needs to be cited properly using APA format. Failure to do so will result in a failing grade for the assignment.

Writing Assignment #1: Explain the 5 steps of hypothesis testing to someone who is NOT familiar with statistical methods.

Writing Assignment #2: Differentiate between a z-score, a t-score, and an F-score.

Grade Determinants:

Assessment	Possible Pts	Your Pts	Assessment	Possible Pts	Your Pts
Pre Quiz	5		Writing Assignment #1	40	
Quiz 1	15		Writing Assignment #2	40	
Quiz 2	15		Discuss 1	5	
Quiz 3	15		Discuss 2	5	
Quiz 4	15		Discuss 3	5	
Quiz 5	15		Discuss 4	5	
Exam 1	100		Discuss 5	5	
Exam 2	100		Discuss 6	5	
Exam 3	100		Discuss 7	5	
			Discuss 8	5	

Grading Scale:

Point Range	Percentage	Letter Grade
468-500	94-100	A
448-467	90-93	A-
433-447	87-89	B+
418-432	84-86	B
398-417	80-83	B-
383-397	77-79	C+
368-382	74-76	C
343-367	70-73	C-
298-342	60-69	D
Below 297	Below 60	F

TENTATIVE	COURSE	SCHEDULE
Date	**Topic**	**Assignment**
	Pre-Quiz**(see below)** **D2L Discussion 1****(see below)**	**Due Tues 1/12 @ 7:00am** **Due Tues 1/12 @ 7:00am**
1/16	Orientation to course and text Chapter 1 (Displaying data) Chapter 2 (Measures of central tendency and variability)	H1: P. 27 (11, 13, 16) H2: P. 61 (13, 15, 17, 19, 20)
	D2L Discussion 2 **Quiz 1**	**Due Tues 1/26 @ 7:00am** **Due Tues 1/26 @ 7:00am**
1/30	Chapter 3 (z-scores, normal curve, sample/population, probability)	H3: P. 103 (14, 15, 18, 22, 26)
	D2L Discussion 3 **Exam 1**	**Due Tues 2/9 @ 7:00am** **Available Sun 2/7 @ 7:00am – Tues 2/9 @ 7:00am**
2/13	Chapter 4 (Hypothesis testing)	H4: P. 133 (13, 15, 18a)
	D2L Discussion 4 **Quiz 2**	**Due Tues 2/23 at 7:00am** **Due Tues 2/23 at 7:00am**
2/27	Chapter 5 (Hypothesis testing cont.) Chapter 6 (Statistical significance)	H5: P. 170 (17, 18, 20a) H6: P. 219 (13, 14, 15)
	D2L Discussion 5 **Exam 2**	**Due Tues 3/9 @ 7:00am** **Available Sun 3/7 @7:00am-Tues 3/9 @ 7:00am**
3/13	Chapter 7 (t-test) Symbols Review	H7: P. 261 (13, 15a, 17a)
	D2L Discussion 6 **Quiz 3** **Writing Assignment #1**	**Due Tues 3/23 @ 7:00am** **Due Tues 3/23 @ 7:00am** **Due Tues 3/23 @ 7:00am**
3/27	Chapter 8 (t-test cont)	H8: P. 302 (16, 17a, 18a)
	D2L Discussion 7 **Quiz 4**	**Due Tues 4/6 @ 7:00am** **Due Tues 4/6 @ 7:00am**
4/10	Chapter 9 (Analysis of variance)	H9: P. 361 (14, 16a, 17a)
	D2L Discussion 8 **Quiz 5** **Writing Assignment #2**	**Due Tues 4/20 @ 7:00am** **Due Tues 4/20 @ 7:00am** **Due Tues 4/20 @ 7:00am**
4/24	Chapter 11 (Correlation)	H10: P. 478 (10, 12, 16)
	Exam 3	**DUE Tues 4/27 @ 7:00am**

******PRE-ASSIGNMENT (AS LISTED ABOVE)**** WILL BE AVAILABLE ON 1/5/09**

1. Complete Pre-Quiz (on D2L). This quiz WILL NOT cover statistical material. It is designed to help students become familiar with assessments on D2L.
2. Respond to D2L Discussion 1. When you log into D2L and click on Discussions for this course, you will see a discussion topic.

NOTE: This syllabus is subject to change at the discretion of the instructor to accommodate instructional and/or student needs.