Summer 2014 IET 2227 Introduction to Statistics Syllabus for Traditional, Hybrid, and Online Courses

Instructor: Professor Gregory L. Wiles

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Office: M 123

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Office hours on-campus: See course website

How to Contact the Instructor

The best way to reach me between class periods is using the D2L email. This way I will know what class you are in already. I will reply as quickly as possible to questions sent over e-mail. If you wish to meet with me in person, you can drop by my office during office hours. For online students, I am also willing to meet with you with an ad-hoc Wimba live session during the week if necessary.

Email Response Time

I commit to answering all emails within 24 hours from the time you first transmit the email, unless I let you know in advance of travel prohibiting me from doing so (or if I have an emergency). This short response time includes weekends and holidays. At times I will send a mass email to the class or an announcement. This will be through D2L Email and alternately with Hornet Mail. I do not know your Yahoo or Gmail accounts so do not expect any mass emails to those accounts. CHECK YOUR VISTA EMAIL & HORNET EMAIL ACCOUNTS FREQUENTLY!

Course Description

This course is a study of statistical concepts with particular emphasis on statistical solutions to common business and industrial problems. Topics include: describing, exploring and comparing data; linear regression; probability; probability distributions; parameter estimation and confidence intervals; and hypothesis testing.

Course Learning Outcomes

Students will be able to:

- 1. Demonstrate critical thinking related to statistics and understand the role that Statistics plays in everyday life.
- 2. Describe data statistically and graphically.
- 3. Use regression analysis to describe the relationship between two variables.
- 4. Identify and apply the appropriate probability distribution to a given problem statement.
- 5. Estimate the population parameters of proportion, mean and variance.
- 6. Apply hypothesis tests to make inferences about a single sample mean.

Course Prerequisites

MATH 1113 Precalculus



Textbook

<u>Introductory Statistics</u> (9th Edition) by Neil A. Weiss; Pearson/Addison-Wesley (2011) ISBN-13: 9780321691224

Desire2Learn (D2L) Course Web Site

This course has a D2L course web site for use by registered students. Any class handouts, slides, grades, announcements, and links will be available there, so please get in the habit of checking it often. To log in, go to: http://spsu.view.usg.edu. Your User ID is the same as your email prefix, and initial password is your email password. There are help links on the website or go to: http://spsu.edu/d2l/student/

Class Schedule

This course will meet on the dates indicated on the Course Schedule as posted on the course homepage. For hybrid students, we will meet once a week physically in a classroom and the remainder of the week you are responsible for viewing video lectures and taking online comp and homework quizzes. For online students we will also meet once a week but virtually using Wimba Live Classroom located on the course homepage. The remainder of the week you are responsible for viewing video lectures and taking online quizzes.

Comprehension (COMP) quizzes

There will be a short 5 question comprehension quiz for each module posted on the website. These should be taken after viewing the pre-recorded material for the module, and are due before attending the live lecture related to the material. They are timed (30 minute) quizzes and due before class time. Students receive one attempt at these quizzes. These quizzes should be very simple if you have read the chapter and/or viewed the pre-recorded lecture. See the Course Schedule for detailed deadlines. I do not accept late quizzes and there will not be an opportunity to re-take any missed quizzes. However, I realize that circumstances beyond your control sometimes do occur. Therefore, each student's lowest homework quiz grade will be "dropped".

Homework (HW) quizzes

These will be a multiple choice, <u>untimed</u>, homework quiz for each module posted on the website. Students receive <u>two</u> opportunities to take each homework quiz and will be shown which questions were incorrect at the end of the first attempt. Due dates for the final attempts at the quizzes are available in the Course Schedule. Homework quiz questions are similar to what you should expect for exam questions. I strongly recommend you take your first attempt at the quiz with enough time to be able to ask me questions about the material if you are confused. If you use your time well, these quizzes should be an easy way to increase your course grade. <u>Quizzes must be done independently</u>. I do not accept late quizzes and there will not be an opportunity to re-take any missed quizzes. However, I realize that circumstances beyond your control sometimes do occur. Therefore, each student's lowest homework quiz grade will be "dropped".

Exams

Exams are open-book and online. Exams will be a combination of multiple-choice and short-answer questions. The exams are randomized so no two are alike. Sample exams will be available for download on the course website before each exam. All exams and the optional final will be available online for all students unless changed by the

instructor. Students are expected to do their own work with no help from others or the internet. Students will receive their grade on each exam within one week of the date that they take the exam.

Extra credit

Statistics is best learned by working example problems. Each module has suggested homework questions to work through, with full solutions posted in the module. I suggest that you work the problems after viewing the pre-recorded lecture, before attending live class, so that you know what questions you have. For extra credit, work the homework problems in a well-organized, legible manner, and bring them to each exam for me to look through to earn UP TO 5 additional points on each exam. DO NOT simply copy the solutions, as that will result in 0 points.

Grading Policy

Your final grade in this course will be determined using the following weights for each component of this course:

Component	Weight
Exam 1	26.67%
Exam 2	26.67%
Exam 3	26.67%
Comprehensive final (optional – will	replace
replace lowest Exam score)	
Comprehension quizzes	10%
Homework quizzes	10%
Total	100%

The comprehensive final exam is optional for you. You have the opportunity to replace your lowest past exam score. The final does not hurt you if you score lower than your lowest grade already, it can only help you. In other words, out of 4 possible exams, I will take the top 3 scores.

Hybrid or On-Line Course Attendance Policy

Hybrid sessions (-85X) are designed to be one-half classroom attendance and on-half online. The On-Line session (-90X) will be attended one-half via on-line meeting room software such as Wimba and one-half pre-recorded on-line lectures. Both types of classes require the student to view the pre-recorded lecture between any live lectures. It will be the student's responsibility to schedule and view these lectures at your own convenience. The instructor cannot monitor who views the recorded lectures and those who do not. It is strongly recommended that you watch the lectures and keep up with class work and class discussions.

Calculators/Software

For the homework and exams you will need a calculator capable of performing basic statistics on a list of data (calculating the mean, standard deviation at minimum). One clue if you calculator is capable is to look for a DATA key. You do not need a graphing calculator. I recommend that you bring your calculator to class to practice. You are responsible for knowing how to use it before the first exam! Do ask *me* how to use your calculator, there are too many out there!

Disruptive Behavior and Academic Dishonesty

SPSU has an Honor Code and a new procedure relating to when academic misconduct is alleged. All students should be aware of them. Information about the Honor Code and the misconduct procedure may be found at http://spsu.edu/honorcode/.

Disability Statement

"A student at Southern Polytechnic State University who has a disabling condition and needs academic accommodations has a responsibility to voluntarily identify him/herself as having a disability by scheduling an appointment with the Disability Services Coordinator as soon as possible." (SPSU Catalog). Contact the Coordinator as follows: Kalisha Thomas, 678-915-7244, Building J, Room 253, kthomas2@spsu.edu.

Professional Behavior

All students are expected to abide by the professional ethical behavior standards published in the SPSU catalog.