STP 420: Introduction to Applied Statistics – Fall 2013

STP 420 is in Blackboard and WebAssign	**INSTRUCTOR:** Ioannis Kamarianakis (call me Yiannis)
TIMES: MWF 1:30 PM – 2:20 PM	**OFFICE HOURS:** Mondays and Wednesdays 3:00 p.m.– 5:00 p.m. and by appointment.
ROOM: BA 341	**E-MAIL:** yiannis76@asu.edu
DATES: 8/23/2013 – 12/6/2013	**OFFICE:** PSA 739
SLN: 77402	**PHONE:** 480-965-3724

Text: Introduction to the Practice of Statistics, 7th Edition, Moore, McCabe, Craig.

Prerequisites: MAT 117 or MAT 142 with C or better

Tentative Dates for Lectures and Exams

WEEK	DATES	SECTIONS	COMMENS
1	08/23/13	Introduction, Summary of the material, 1.1: Displaying Distributions with Graphs	
2	08/26 – 08/30	1.2: Describing Distributions with Numbers; 1.3: Density Curves and Normal Distributions; Brief Introduction to R	08/28: Last day to enroll, drop deadline
3	09/2 – 09/6	2.1: Scatter plots; 2.2: Correlation; 2.3: Least Squares Regression; 2.4 Cautions about Correlation and Regression; 2.6 The Question of Causation	9/2: Labor day
4	09/9 – 09/13	3.1: Design of Experiments; 3.2: Sampling Design; 3.3: Toward Statistical Inference;	

		3.4: Ethics	
5	09/16 – 09/20	4.1: Randomness; 4.2: Probability Models 4.3 Random Variables; 4.4: Mean and Variances of Random Variables; 4.5 General Probability Rules	
6	09/23 – 09/27	Review; Example Questions for Exam 1 (09/23, 09/25); **Exam 1 (09/27)**	
7	09/30 – 10/4	5.1: Sampling Distributions for Counts and Proportions; 5.2 The Sampling Distribution of the Sample Mean	ASR1 (9/30 – 10/7)
8	10/7 – 10/11	6.1: Estimating with Confidence; 6.2: Test of Significance; Use and Abuse of Tests; 6.4: Power and Inference as a Decision	
9	10/14 – 10/18	7.1: Inference for the Mean of a Population; 7.2: Comparing Two Means; 7.3: Optional Topics in Comparing Distributions	
10	10/21 – 10/25	8.1: Inference for a Single Proportion; 8.2 Comparing Two Proportions	
11	10/28 – 11/1	2.5: Data Analysis for Two-Way Tables; 9.1: Inference for Two-Way Tables; 9.2: Formulas and Models for Two-Way Tables; 9.3: goodness of Fit	
12	11/4 – 11/8	Review; Example Questions for Exam 2 (11/4. 11/6); **Exam 2 (11/8)**	ASR2 (11/4 – 11/11); 11/6: Course withdrawal deadline
13	11/11 -11/15	10.1 Simple Linear Regression; 10.2: More Detail about Simple Linear Regression	11/11: Veteran's Day
14	11/18 – 11/22	11.1: Inference for Multiple Regression; 11.2: A Case Study; 12.1: Inference for One-Way Analysis of Variance	
15	11/25 – 11/29	12.2: Comparing the Means; 13.1 The Two-Way ANOVA model; 13.2 Inference for the Two-Way ANOVA	11/29: Thanksgiving

16	12/2 – 12/6	Review; Example questions for final exam	12/6: Complete session withdrawal deadline

Exams	**Topics on Test**
Exam 1 (09/27)	Chapters: 1-4
Exam 2 (11/8)	Chapters: 5-9
Final Exam (12/9, 12:10 p.m. – 2:00 p.m.)	Partially cumulative, Chapters: 10-13

Point Allocation		**Grading Scale**	
Exam 1	15%	A	85 - 100
Exam 2	15%	B	70 - 84
Homework	25%	C	55 - 69
Quizzes	15%	D	40 - 54
Final Exam	30%	E	0 - 39

Note: Information in the tables shown above may change; changes will be announced in class and in Blackboard.

Mathematics Department Final Exam Policy: The Department of Mathematics follows Arizona Board of Regents policy, which states that all final examinations shall be administered at their officially scheduled times. A final exam schedule appears in the Fall Bulletin of classes. Requests to take the final examination at a time other than the published time will not be granted except in emergencies or for reasons of religious practice. In particular, nonrefundable plane tickets, weddings, work schedules, and the like are *not* acceptable reasons for rescheduling final examinations. Please keep this policy in mind when making end-of-semester plans.

Makeup exams: Make-up exams will *not* be given. Permission to take an exam at a time other than the scheduled one will be granted at the sole discretion of the instructor. Written documentation may be required to substantiate claims of hardship. Arrangements must be made before the date of the test. Unexcused absences from exams will result in a grade of zero.

Homework, Quizzes and Projects: Regular quizzes and projects will be given at the discretion of the instructor; no makeup quizzes or projects. Homework, quizzes, and projects will be graded. Unless otherwise noted in class, homework assignments given out each week will be due at

the beginning of class on Wednesdays. Late homework will be accepted at the sole discretion of the instructor. Work that is not neatly written or stapled will not be graded. Students may work together on homework, but each individual student is required to submit their own work.

Attendance: Each class will cover several sections therefore attendance at all meetings in their entirety is expected. If illness or other circumstance prevents you from attending, the I would appreciate an email. Please do not come to class if you are feeling ill. I am happy to make appropriate accommodations. Students absent for university sponsored events must make arrangements for making up the work they will miss *before* they are absent.

Estimated workload: You will be expected to complete homework assignments diligently and on time in order to keep up with the material. A three-credit course requires at least 135 hours of student work. You should expect to spend 10 to 15 hours per week on this course, counting homework and lectures.

Software: Example Calculations will be performed using R (www.r-project.org). Students are strongly encouraged to use R for their homework because it is powerful, popular and free. Alternative software packages are SAS, SPSS, MINITAB (available on www.my.asu.edu under My Apps) and Crunchit! which can be found on the disk attached with the hard copy of the textbook.

Graphing Calculator: A graphing calculator is required for this course. Calculator TI83+ or TI84+ is highly recommended. Other models and makes such as TI85, TI86, Casio 9750G or 9850GB+ are also suitable. Calculators with QWERTY keyboards or those that do symbolic algebra, such as TI-89, TI-92, Casio FX2 or 9970G *cannot* be used in class or during exams.

Extra credit: No individual request for extra credit will be considered.

Disabilities: If you have any disability that may hinder your performance, please notify me as soon as possible.

Ethics: Cellular phones and pagers must be turned off during class. No texting, no ipods, etc. Arriving late to class will not be tolerated. Academic dishonesty, including inappropriate collaboration will not be tolerated. There are severe sanctions for cheating, plagiarizing and any other form of dishonesty. More information can be found at:
https://provost.asu.edu/academicintegrity

Agreement of Terms: By remaining registered through drop/add period, you agree to all terms and policies set forth in the syllabus. This syllabus is tentative and should not be considered definitive. The instructor reserves the right to modify it (including the dates of the tests) to meet the needs of the class. Announcements made in class are considered addenda to the syllabus. It is the student's responsibility to attend class regularly and to make note of any change.