Beijing Jiaotong University

2019 Summer Session

STAT 101 Introduction to Statistics

Course Outline

Term: July 08-August 09,2019

Class Hours: 16:00-18:00 (Monday through Friday)

Course Code: STAT 101

Instructor: George Sarraf

Home Institution: University of California Irvine

Office Hours: TBA

Email: gsarraf@uci.edu

Credit: 4

Class Hours: This course will have 72 class hours, including 40 lecture hours, professor 10 office hours, 10-hour TA discussion sessions, 2-hour review sessions, 10-hour extra classes.

Course Description, Goals & Hours:
This is an introductory course in statistics intended for students in a wide variety of areas of study. Topics discussed include displaying and describing data, the normal curve, regression, probability, Testing the Difference Between Two Means, Two Variances, and Two Proportions, Correlation and Regression, Analysis of Variance.

Course Goals:
A student who satisfactorily completes this course should:

- Demonstrate their understanding of descriptive statistics by practical application of quantitative reasoning.
- Demonstrate their knowledge by making valid generalizations from sample data.
- Develop basic concepts of probability, Correlation and Regression.

Required Textbooks:

1. Elementary Statistics: A Step by Step Approach by Allan Bluman

Lectures:
Lectures are designed to clearly explain the concepts covered in the textbook and how they apply to real world situations. Outlines of the lecture notes will be made available to students prior to class.

Attendance Policy:
Summer classes are intensive and require hard work and diligence. Attending classes is essential for mastering the concepts presented during lectures. If you miss the class due to a legitimate reason (e.g. sickness) you will be required to notify the instructor. Such absence will be recorded as excused absence.
Attendance will be recorded and is worth 15% of the student grade.

Tests:
There will be one midterm and a final. If you miss a midterm for a legitimate reason (you'll be required to show a proof. e.g. if you have a medical reason, you'll have to provide a medical note), then the final will count for your missed midterm. There will be no alternate/make-up midterms under any circumstances.
Please make any travel or other plans around the posted dates and times.

Homework:
There will be 2 homework assignments, each one is meant to help you prepare (along with the other materials) for the upcoming exams. Late submission of homework will not be accepted. You are required to submit a hard copy of your homework. Homework emailed to me or the TA will not be graded. It's important to write down your name, student id and homework number, otherwise it will not be graded. Instruction on how to submit your homework will be provided.

Grading Breakdown:
Midterm 35%
Final 35%
Homework 15%
Attendance 15%

Total Score = [Mid*0.35 + Final*0.35 + Hwk*0.15 + Att*0.15]. Curve will be determined based on the distribution of grades.

Your grade will be determined on the following scale.

A	**90-100**	**C+**	**72-74**	**F**	**Below 56**
A-	**85-89**	**C**	**68-71**		
B+	**82-84**	**C-**	**64-67**		
B	**78-81**	**D+**	**60-63**		
B-	**75-77**	**D**	**56-59**		

Course Outline		
Week	**Topic**	**Chapter**
Week 1		
	Introduction and Syllabus	***1***
	Frequency Distribution and Graphs	***2***
	Data Description	***3***
Week 2		
	Probability and Counting Rule	***4***
	Discrete Probability Distribution	***5***
	The Normal Distribution	***6***
Week 3		
	Midterm Review	
	Homework 1 Due (day of the midterm)	
	Midterm Exam	***1-5***
	Confidence Interval and Sample Size	*7*
Week 4		
	Hypothesis Testing Using P value	***8***
	Z Test	
	Testing the Difference Between 2 Means	***9***
	Testing the Difference Between 2 Variances	
Week 5		
	Correlation and Regression	***10***
	Linear Correlation, Regression Equation, Correlation coefficient	
	Final Exam Review	
	Homework 2 Due (day of the final)	
	Final Exam (tba)	**6-10**