Beijing Jiaotong University

2020 Summer Session

ECON 203 Introduction to Statistics

Course Outline

Term: July 13-August 7,2020

Class Hours: 12:00-13:50 (Monday through Friday)

Course Code: ECON 203

Instructor: George Sarraf

Home Institution: University of California Irvine

Office Hours: TBA

Email: gsarraf@uci.edu

Credit: 4

Class Hours: This course will have 52 class hours, including 32 lecture hours, professor 8 office hours, 8 one-hour TA discussion sessions, 4 one-hour review sessions.

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 Textbook:

1. Basic Statistics for Business and Economics by Lind, 9th edition

Optional Textbook:

2. 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**		

Course Outline								
Week	**Topic**	**B**	**78-81**	**D+**	**60-63**			**Chapter**
Week 1		**B-**	**75-77**	**D**	**56-59**			
	Introduction and Syllabus What is Statistics?							***L1*** ***B1***
	Frequency Tables, Distribution and Graphic Presentation Frequency Distribution and Graphs							***L2*** ***B2***
	Describing Data: Numerical Measures Describing Data: Displaying and Exploring Data Data Description							***L3*** ***L4*** ***B3***
Week 2								
	A Survey of Probability Concepts Probability and Counting Rule							***L5*** ***B4***
	Discrete Probability Distribution							***L6*** ***B5***
	Continuous Probability Distribution The Normal Distribution							***L7*** ***B6***
	Sampling Methods and the Central Limit Theorem Estimation, Confidence Interval and Sample Size							***L8,9*** ***B7***
Week 3								
	Midterm Review Monday							
	Homework 1 Due (day of the midterm)							
	Midterm Exam Tuesday							***L:1-L7*** ***B:1-5***
	One-Sample Tests of Hypothesis Hypothesis Testing Using P value							***L10*** ***B8***
Week 4								
	Z Test							
	Two Sample Hypothesis Testing the Difference Between 2 Means							***L11*** ***B9***
	Analysis of Variance Testing the Difference Between 2 Variances							***L12***

	Correlation and Regression	***L13***
	Linear Correlation, Regression Equation, Correlation coefficient	***B10***
	Final Exam Review	
	Homework 2 Due (day of the final)	
	Final Exam (tba)	**L8-L13 / B:6-10**