



Shanghai Jiao Tong University
EC313 Introduction to Statistics

Instructor Information	Gexin Yu Home Institution: College of William & Mary Email: gyu@wm.edu Office Hours: Determined by Instructor		
Term	June 28, 2021 - July 29, 2021	Credits	4 units
Class Hours	Monday through Thursday, 120 mins per teaching day		
Discussion Sessions	2 hours each week, conducted by teaching assistant(s)		
Total Contact Hours	66 contact hours (1 contact hour = 45 mins, 3000 mins in total)		
Required Texts (with ISBN)	Business Statistics—A First Course, David Levine, Kathryn Szabat, and David Stephan, 7th edition (global edition), ISBN 10: 1-29-209593-8. ISBN 13: 978-1-292-09593-6 (Print) ISBN 13: 978-1-292-09602-5 (PDF)		
Prerequisite	N/A		
The course might be moved to online delivery due to COVID-19 pandemic. Students will be notified once the decision is made.			



Course Overview

This course is an introduction to the basic concepts and procedures behind probability and statistics. Some of the topics covered are descriptive statistics, experimental design, regression, probability, discrete random variables including the binomial distribution, the normal distribution, confidence intervals, hypothesis tests for a single parameter, inference on two samples and the chi-square distribution to test goodness-of-fit and independence. Knowledge in calculus is preferred.

Learning Outcomes

After the course, students should learn some basics concepts and methods in statistics to analyze simple problems in business.

Grading Policy

Quizzes and Homework	30%
Midterm Examination	30%
Final Examination	40%

Grading Scale is as follows

Number grade	Letter grade	GPA
90-100	A	4.0
85-89	A-	3.7
80-84	B+	3.3
75-79	B	3.0
70-74	B-	2.7
67-69	C+	2.3
65-66	C	2.0
62-64	C-	1.7
60-61	D	1.0
≤59	F (Failure)	0

Due to the on-going pandemic, there is a possibility that in-person courses move to online delivery. Students will be notified once the decision is made.

If the in-person courses are to be changed to online courses, we will make a few adjustments:

Lecture: Each lecture will be uploaded on SJTU SCE online learning platform on a daily basis. Students are required to watch them according to the course schedule.

Discussion: There will be two hours open session on ZOOM every week. The attendance of the discussion is important as it is part of your final score.

Homework: homework sets will be collected on blackboard.

Office hours: office hours will be conducted via Zoom.

Exam: the midterm and final exams will be conducted remotely.



Class Schedule

Date	Lecture	Readings
Day 1	Introduction, Defining and collecting data	Chapter 1
Day 2	Organizing and visualizing variables	Chapter 2
Day 3	Numerical description measures	Chapter 3
Day 4	Basic probability 1	Chapter 4
Day 5	Basic probability 2	Chapter 4
Day 6	Discrete probability distribution	Chapter 5
Day 7	Normal distribution	Chapter 6
Day 8	Sample distribution	Chapter 7
Day 9	Midterm review	
Day 10	Midterm Examination	Chapter 1-7
Day 11	Confidence interval estimation	Chapter 8
Day 12	Fundamentals of hypothesis testing: one sample tests	Chapter 9
Day 13	Two-sample tests	Chapter 10
Day 14	One-way ANOVA	Chapter 10
Day 15	Chi-square tests	Chapter 11
Day 16	Simple linear regression 1	Chapter 12
Day 17	Simple linear regression 2	Chapter 12
Day 18	Multiple regression	Chapter 13
Day 19	Final Review	
Day 20	The Final Examination	Chapter 1-13