

Econ 3640-001

Probability and Statistical Inference for Economists

Summer 2018

3 Credit Hours, Fulfills QR-B Requirement

Class meets on Tuesday (6:00 PM – 9:00 PM) in AEB 340

Instructor

Junfu Zhao

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Office Hour & Location: Monday 2:00 PM – 5: 00 PM; Building #72, Econ Desk #19. If you want to meet at other time, please contact me and make an appointment in advance.

Objective

This course introduces students to the foundations of statistical analysis. The course aims to impart the basic understanding about randomness and how to make inferences based on samples, covering frequency distributions, moments, sample spaces, random variables, probability distributions, sampling theory, estimators, confidence intervals, hypothesis testing, and two-variable regression models. You can find this skill useful in a wide range of contexts ranging from reading and interpreting news articles critically, becoming an educated consumer, evaluating policies, to taking more advanced classes in quantitative analysis. This course belongs to the category of Quantitative Reasoning (QR-B) courses.

At the end of the semester a successful student would be able to

- 1) Examine a dataset and construct meaningful graphical and numerical summaries of the data using the software **EXCEL**.
- 2) Apply statistical inference tools based on point and interval estimation, and test hypotheses in a wide range of contexts.
- 3) Critically evaluate statistical results and communicate the implications in simple language to a general audience.

Prerequisite

College Algebra, (MATH 1090 preferred), ECON 2010 and 2020.

Textbook

The Practice of Statistics for Business and Economics, by Moore et. al, 4th Edition, Publisher: W. H. Freeman

Course Evaluation Components and Their Weights

- 1) Class Attendance: 10%
- 2) Assignments: 30%. There will be **Nine** assignments, one for each week excluding the midterm week and the last week. I will post the assignment on Canvas every Wednesday and the deadline is the following Monday, 9:00 PM. You should submit the assignment on Canvas before the deadline.
- 3) Midterm Exam: 30%. Date: June 19th.
- 4) Final Exam: 30%. Date: TBA

Course Grade Criterion

- A: 93%-100%; A-: 90%-92%;
B+: 87%-89%; B: 83%-86%; B-: 80%-82%;
C+: 77%-79%; C: 73%-76%; C-: 70%-72%;
D+: 65%-69%; D: 60%-64%; D-: 50%-59%;
E: 0-50%.

Notes

- 1) The exams must be taken at the scheduled time. No make-up exams are given.
- 2) If you have any question regarding your grades in an exam, you must ask within a week from the day the grades are provided. No exceptions to this rule will be entertained.

Planned Schedule

- 5/15 Introduction/Chapter One
5/22 Chapter One/Chapter Two
5/29 Chapter Two/Chapter Three
6/5 Chapter Four
6/12 Chapter Five
6/19 Midterm Exam
6/26 Chapter Six
7/3 Chapter Six/Chapter Seven
7/10 Chapter Seven/Chapter Eight
7/17 Chapter Eight/Chapter Ten
7/24 No class, Pioneer Day holiday
7/31 Chapter Ten, and Review
TBA, Final Exam

University Policies

Americans with Disabilities Act (ADA) Statement

The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations. All information in this course can be made available in alternative format with prior notification to the Center for Disability Services. (www.hr.utah.edu/oeo/ada/guide/faculty/)

Wellness Statement

Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student's ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness - www.wellness.utah.edu; 801-581-7776.

Academic Misconduct

Academic misconduct includes cheating, plagiarizing, research misconduct, misrepresenting one's work, and inappropriately collaborating. Definitions of these and other terms are in the Student Code at <http://www.regulations.utah.edu/academics/6-400.html>. The Student Code (at section 6-400(V)) also specifies the required procedures that must be followed when disciplinary actions are taken in response to instances of academic misconduct. A second occurrence of academic misconduct will result in the student's dismissal from their academic program. I will assume that each student has read both the statement from the Handbook and the AICP Code.

Addressing Sexual Misconduct

Title IX makes it clear that violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a Civil Rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran's status or genetic information. If you or someone you know has been harassed or assaulted on the basis of your sex, including sexual orientation or gender identity/expression, you are encouraged to report it to the University's Title IX Coordinator; Director, Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or to the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to police, contact the Department of Public Safety, 801-585-2677(COPS). Additional information regarding reporting and victim supportive resources are available at the offices listed above.