

# Econ 3640-001 Summer Semester 2017

Tuesday 6:00 PM - 9:00 PM; AEB 330

Instructor: Taeyoung Lee Email: taeyoung.lee@economics.utah.edu Office Hours: TBA Office Location: TBA

#### **Reading Materials**

Statistics for Business and Economics, 13e by McClave, Benson, and Sincich, Pearson. (Required)

#### **Course Description from the University Catalogue**

Frequency distributions, moments, sample spaces, random variables, probability distributions, sampling theory, estimators, confidence intervals, hypothesis testing, two-variable regression models. Applications of computer software packages.

Prerequisite: College Algebra, (MATH 1090 preferred), ECON 2010 and 2020. Requirement Designation: Quantitative Reasoning (Statistics/Logic) Credit hours: 3

#### **Course Objective and Outcomes**

The primary objective of this course is to lay the foundation and construct the framework for statistical inference. Many phenomena in the economic world are inherently uncertain but exhibit regular patterns. That is, they are of stochastic nature. We will spend the first several weeks learning how to mathematically represent stochastic phenomena using probability models. The rest of the semester will then focus on how to make statistical inferences using probability models.

By the end of this course, you will be able to think systematically through a wide variety of problems involving statistical inferences.

#### **University Policies**

- 1. *The Americans with Disabilities Act.* 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 this class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, (801) 581-5020. CDS will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in an alternative format with prior notification to the Center for Disability Services.
- 2. *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, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or 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 the police, contact the Department of Public Safety, 801-585-2677(COPS).

### **Expectations and Course Policies**

Teaching will mainly consist of lecture and discussions. Each week you are expected to check Canvas for lecture slides, assignments, and announcements.

Please read the textbook chapters before they are covered in class.

<u>Attendance & Participation</u>: Please be on time. Come prepared so that you can actively participate in class discussions. There are eleven class meetings including two midterm days. After missing two classes, each additional absence will reduce the maximum attainable attendance and participation grade by 10%. You should save two potential absences for unforeseeable illnesses and emergencies.

<u>Cheating</u>: Turning in work that is not your own is an act of cheating. Any act of cheating will result in a failing grade (zero points) on the exam or assignment. Any subsequent act of cheating will result in a failing grade for the course.

## <u>Course Webpage:</u> Canvas

## **Grading Policy**

- 1. Assignments (10%)
- 2. One midterm (40%)
- 3. Final exam (40%)
- 4. Attendance and participation (10%)

All students are required to take exams as scheduled. No early or late exams will be given.

Letter grades will be primarily based on the total percentage earned from the three exams, assignments, attendance, and participation. However, your preparedness and class participation may positively affect your final letter grade.

## Topics

Statistics, Data, and Statistical Thinking (Chapter 1) Methods for Describing Sets of Data (Chapter 2) Probability (Chapter 3) Random Variables and Probability Distributions (Chapter 4) Sampling Distributions (Chapter 5)

Inferences Based on a Single Sample: Estimation with Confidence Intervals (Chapter 6) Inferences Based on a Single Sample: Test of Hypotheses (Chapter 7) Inferences Based on Two Samples: Confidence Intervals and Test of Hypotheses (Chapter 8 - if time allows)

**Note**: This syllabus is meant to serve as an outline and guide for the course. Please note that I may modify it with reasonable notice. I may also modify the topics to be covered in order to accommodate the needs of the class. Any changes will be announced in class and posted on Canvas under the Announcements section.