Probability and Statistical Inference ECON 3640-002

Instructor: Sophie Wu
Class time: M, W, 11:50 am – 1:10 pm
Classroom: ST 205
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Office hours: by appointment

Objective

This statistics course fulfills the QB requirement for general education. It aims to equip students with statistical tools and fundamental knowledge of data analysis. Numerical examples demonstrated in my lecture intend to give students a general idea regarding how statistics is applied to real business problems.

The course primarily covers three main themes in statistics:

(1) descriptive statistics (ch 1, 2, 3, 4)
(2) discrete and continuous probability distributions (ch 5, 6, 7, 8)
(3) statistical inference based on the knowledge of probability distribution (ch 9, 10, 11, 12, 13)

By the end of the semester, students are expected to carry statistical techniques for independent research.

Textbook

10^{th} edition, Statistics for Management and Economics (January, 2014)
Gerald Keller Wilfrid Laurier University
ISBN-10: 1285425456
ISBN-13: 9781285425450

Grade Weights

Assignments: 30%
Midterms: 40% (Three midterms are scheduled on 09/22, 10/22, 11/24.)
Final Exam: 30% (In-class final exam is scheduled on Dec. 19^{th}, 10:30 am-12:30 pm.)

Tentative Grade Scale:

A: 90 or above A-: 85 or above B+: 80 or above B: 75 or above
B-: 70 or above C+: 65 or above C: 60 or above C-: 50 or above
E: < 50
The grade scale may be adjusted based on the class performance.

Tentative Schedules

Week 1	
08/25	introduction (ch 1)
08/27	descriptive statistics (ch 2-4)
Week 2	
09/01	labor day, no class
09/03	descriptive statistics (ch 2-4)
Week 3	
09/08	descriptive statistics (ch 2-4)
09/10	normal distribution and the concept of continuous distribution (ch 8-1, ch 8-2)

Week 4	
09/15	assignment 1 review
09/17	optional
Week 5	
*09/22	exam 1
09/24	discrete probability (ch 6-7)
Week 6	
09/29	discrete probability (ch 6-7)
10/01	discrete probability (ch 6-7)
Week 7	
10/06	discrete probability (ch 6-7)
10/08	discrete probability (ch 6-7)
Week 8	
10/13	Fall break
10/15	Fall break
Week 9	
10/20	optional
*10/22	exam 2
Week 10	
10/27	continuous probability distribution (ch 8)
10/29	data collection and sampling (ch 5)
Week 11	
11/03	estimation (ch 9-ch 10)
11/05	estimation (ch 9-ch 10)
Week 12	
11/10	estimation (ch 9-10)
11/12	estimation (ch 9-10)
Week 13	
11/17	statistical inference (ch 11-13)
11/19	statistical inference (ch 11-13)
Week 14	
*11/24	exam 3 (ch 9-ch 10)
11/26	statistical inference (ch 11-13)
Week 15	
12/01	statistical inference (ch 11-13)
12/03	statistical inference (ch 11-13)
Week 16	
12/08	statistical inference (ch 11-13)
12/10	statistical inference (ch 11-13)

Week 17
12/19 final exam 10:30 am – 12:30 pm

Policies and Rules

1. Students need to take the exams on the scheduled dates. No make-up exam will be given for any reasons. Late assignment submission will result a mark of zero.
2. Plagiarism and any forms of cheating are prohibited. If caught, the case will be directly reported to the department and university without any negotiation.
3. Please consult student code at www.utah.edu.