Math 1140-06: Probability and Statistics for Business (Fall 2015)

Instructor: Kui Zhang
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Office Hours: MWF 13:00-13:50
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Lectures: Room 126 Gibson MWF 14:00-14:50

Labs

TA: Yunqi Zhao
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Office Hours: ?
Meets Thursday at 12:30 in Room 200A MA


Calculator: Students are required to have a simple scientific calculator. Graphing calculators are specifically not allowed.

Students are expected to have a laptop computer with a fully functional version of Microsoft Excel for Windows

Coverage

Chapter 1: §§2, 3, 5, 6
Chapter 2: §§1, 2, 3, 4, 5, 6, 7, 8
Chapter 3: §§1, 2, 3, 4, 5, 6,
Chapter 4: §§1, 2, 3, 4 (hypergeometric only), 5, 6.
Chapter 5: §§1, 2, 3, 4
Chapter 6: §§1, 2, 3, 4.
Chapter 7: §§1, 2, 3, 4, 5, 6.
Chapter 8: §§1, 2, 3, 4.
Chapter 12: §§1, 2, 3, 4 via Microsoft Excel.

Exam Dates
Exam 1: Wednesday, September 16
Exam 2: Monday, October 12
Exam 3: Wednesday, November 18
Final Exam*: Thursday, December 10 from 8:00- Noon.
*Note that the final exam probably will not be held in the same room in which the lectures are held. I will announce the room assignments for the final exam in the last two weeks of the semester.

Grade
Homework = 10%
Quizzes = 10%
The will be three one-hour in class exams
One-Hour Exam Grade Average = 50%
There will be a comprehensive final exam = 30%

Exercises

Chapter 1: 14, 15, 16, 17

Chapter 2: 1, 2, 3, 7, 9, 19, 20, 23, 24, 26, 35, 36, 39, 40, 43, 44, 49, 57, 58, 66, 66, 72, 74, 79, 81, 90, 91, 97, 106, 118, 121, 122, 128.*

Chapter 3: 1, 2, 3, 4, 5, 6, 7, 13, 15, 16, 18, 28, 29, 30, 31, 33, 39, 44, 49, 50, 55, 58, 60, 68, 71, 75.*

Chapter 4: 11, 12, 13, 14, 15, 18, 22, 40, 41, 43, 44, 49, 51, 56, 63, 64, 67, 72, 74, 77, 84, 85, 86, 87, 88, 89, 91, 92, 93, 94, 100, 110, 116.*

Chapter 5: 1, 8, 9, 16, 17, 18, 19, 20, 21, 24, 25, 28, 36, 37, 38, 42, 44, 47, 48*

Chapter 6: 1, 2, 3, 4, 11, 15, 16, 23, 25, 26, 27, 33, 35, 36, 41, 42, 43, 44, 47, 48, 49, 54.*

Chapter 7: 9, 11, 12, 13, 16, 19, 20, 21, 29, 30, 31, 34, 44, 39, 48, 51, 53, 55, 58, 64, 65, 67, 73, 77*

Chapter 8: 2, 6, 7, 10, 11, 17, 18, 23, 27, 28, 30, 37, 39*
Chapter 12: Students should use Microsoft Excel printouts to do these exercises: 3, 4, 17, 21, 24, 25, 26, 33 (parts a and b only).

Excel Topics to be covered

Insert Function

Median
Mean
Sample standard deviation
Sample variance
Percentiles: there are many ways to give percentiles; we will compute percentiles as Excel does.
Maximum
Minimum

Graphs and Charts

Categorical Data

Pie Charts (categorical)
Bar Charts and column charts (categorical)
Pivot Tables

Quantitative Data

Summary Statistics
Histogram (we use Excel convention for the endpoints)
Frequency Distributions
Relative Frequency Distributions
Scatter Diagrams (including the trend line)
Regression Reports (Chapter 12)