

FALL 2012 STA 2000

The final exam will be comprehensive and departmental. These are the topics/sections we are responsible for, as listed in the official Department STA 2000 syllabus. Chapters are from the Levine *et al.* textbook (Pearson).

INTRODUCTION AND DATA PRESENTATION

Chapter 1. Chapter 1 Excel Guide.

Chapter 2 (Sections 1-5, Section 8). Chapters 2 Excel Guide.

- .Introduction to Statistics
- .Data and Variables
- .Contingency Tables
- .Bar and Pie charts
- .Frequency and Percentage distributions
- .Histograms and Polygons
- .Cumulative Distributions

DATA CHARACTERISTICS AND SUMMARY MEASURES

Chapter 3, Sections 1-4 (omit Chebychev Rule), Section 6. Chapter 3 Excel Guide.

- .Measures of Central Tendency
- .Measures of Variability
- .Shape and symmetry

REGRESSION AND CORRELATION

Chapter 12 Sections 1-3. Chapter 12 Excel Guide.

- .Simple Linear Regression
- .Measures of variation

PROBABILITY, PROBABILITY DISTRIBUTIONS, & SAMPLING DISTRIBUTIONS

Chapter 4, Section 1.

Chapter 5, Section 5.1.

Chapter 6, Sections 1-2.

Chapter 7.

Chapters 4-7 Excel Guides.

- .Rules of probability
- .Discrete probability distributions
- .Sampling distributions of means & proportions
- .Continuous probability distributions
- .Normal distribution

ESTIMATION

Chapter 8. Chapter 8 Excel Guide.

- .Confidence intervals for means and proportion
- .Sample size determination for means and proportions

HYPOTHESIS TESTING PART I

Chapter 9. Chapter 9 Excel Guide.

- .Basic Concepts
- .One Sample tests for means and proportions

HYPOTHESIS TESTING PART II

Chapter 10, Sections 1-3 (testing only).

Chapter 11.

Chapters 10-11 Excel Guides.

- .Two Sample tests for means and proportions
- .Testing difference between 2 or more proportions
- .Tests of Independence