

Mth U2285

Intro to Statistics and Statistical Software

Fall 2009

Time and Place M,W,Th : 9.15-10.20, 153 Ryder Hall

Instructor: Prof. Mike Malioutov

Office: 545 Lake Hall

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Office Hours: M,W : 11.45-13.45

Text: Introduction to the Practice of Statistics by Moore and McCabe (sixth edition)

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**Course Objectives:** The goal of this course is to be able to understand the basic concepts of statistics and be able to apply statistical thinking in various applications. In this course, the student should acquire the ability to carry out a study, including formulating the problem, designing the study properly, collecting and analyzing data with the help of a computer, and drawing conclusions. Specifically you will learn to:

- Organize and present data in a clear and logical manner;
- Design proper data collection, using randomization;
- Summarize the data through numerical and graphical methods;
- Do basic probability, including the normal and binomial distributions;
- Understand basic statistical terminology and be able to communicate your results;
- Formulate research problems into statistical language and choose appropriate procedures;
- Carry out data analysis with the help of computer software.

**Grades:**

Quizzes/Tests/homework/computer labs: 60%

Final: 40%

**Homework:** Assignments are given in the course schedule.

**Attendance:** If you miss a class, you are responsible for learning any material you missed and for keeping informed about any announcements in class.

**Final:** The final will be cumulative. **You will not be able to take the final at a separate time unless you have a legitimate conflict** (This would include having another final scheduled at the same time or three finals on the same day. It would NOT include early travel plans.)

**If you have any concerns about the course or instructor:** You should first try to resolve it with me. If this does not resolve the issue you can also talk to the Undergraduate Director Prof. Alex Martsinkovsky (x5510, [alexmart@neu.edu](mailto:alexmart@neu.edu), 471 LA).

**Tutoring:** Free tutoring is available in 540B NI. Hours will be announced later. Tutoring is done on a first come first served basis.

The syllabus and schedule are subject to change. You are responsible for changes announced in class.

**Chapters 1: Looking at Data-Distributions**

Section 1.1	page 22 # 10, 15, 17, 18, 19, 21, 22, 23, 24, 25, 26, 34, 37, 39, 42
Section 1.2	page 48 # 56, 61, 62, 65, 67, 68, 69, 70, 83, 92, 97
Section 1.3	page 72 # 107-112, 114-117, 119-139

**Chapter 4: Probability**

Section 4.1	page 241 # 6
Section 4.2	page 255 # 21, 22, 24, 25, 28, 30, 34, 36
Section 4.3	page 267 # 50, 51, 63
Section 4.4	page 286 # 83, 84
Section 4.5	page 303 # 103, 106, 110, 116, 118

**Chapter 5: Sampling Distributions**

Section 5.1	page 331 # 9, 11, 13, 15, 19, 23, 28
Section 5.2	page 347 # 41, 42, 43, 46, 48, 49, 51, 55, 57, 59

**Chapter 6: Introduction to Inference**

Section 6.1	page 369 # 10, 11, 13, 15, 17, 19, 25, 27, 29
Section 6.2	page 390 # TBA
Section 6.3	page 399 # 87, 88, 89, 95, 107
Section 6.4	page 410 # 109, 113, 127

**Chapter 7: Inference for Distributions**

Section 7.1	page 441 # 15, 18, 21, 31, 33, 37
Section 7.2	page 467 # 61, 67, 69, 71

**Chapter 8: Inference for Proportions**

Section 8.1	page 502 # 7, 11, 19, 21, 23, 27
Section 8.2	page 517 # 39, 53

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**Chapter 9: Analysis of two-way Tables**

Section 9.1, 9.2, 9.3	page 548 # 9, 12, 21, 25, 31
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**Chapter 2: Looking at Data-Relationships**

Section 2.1	page 95 # 7, 9, 19, 21, 23, 27
Section 2.2	page 105 # 29, 30, 37, 38, 41, 47
Section 2.3	page 122 # 57, 58, 59, 65, 70, 75, 78
Section 2.4	page 137 #: 85, 87, 89, 95, 96
Section 2.6	page 160 # 128, 131, 132