

Cleveland State University
Levin College of Urban Affairs
Department of Urban Studies
Instructor: Winifred Weizer
Office hours: (UR217) By appointment

Urban Data Analysis (UST 404 Section 50)
Fall Semester, 2006 Wednesday 6-10 pm
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Phone: 216-702-8300 (leave message)

Course Description: This course is designed to introduce the student to the basic principles, techniques and the logic of data analysis. It also will familiarize the student with statistical reasoning. This course focuses on core statistical concepts and techniques that are used in many fields. The course is designed for urban students who have never had a course in statistics.

Course Objective: The objective of the course is to prepare the student to hopefully become a producer of empirical analyses in the future. At the very least, the course will allow the student to become an informed consumer of statistics.

Course Requirements: Students are expected to attend all class periods, turn in homework assignments when due, complete all learning enhancers and the midterm and final. The student will also do a short project and present the results to the class. Since the class meets once a week, attendance is critical to the student being successful. Instructor PowerPoint is accessible in .pdf format on the n drive when using a Levin College computer. It can also be accessed by typing <ftp://urban.csuohio.edu> from non-Levin computers as your explorer address. Once to the site, choose "utility" and then "weizer" and then "ust404statistics." Copies of the syllabus and the project will also be accessible there.

Grading Policy: Grades are based on the results of homework, learning enhancers, project, tests and class participation. Homework questions are noted on the syllabus with due dates. A penalty of 5% per week will be assessed on homework that is turned in late. The three learning enhancers will be given as noted in the syllabus. There will also be two tests given (a midterm and the final). The grade will consist of the following;

Attendance	10%
Group Assignments	10%
Homework	10%
Project	10%
3 learning enhancers	15%
Midterm	20%
Final	25%

Exam attendance is required. Makeup exams will only be given with the prior approval of the instructor.

Text: De Veaux, Richard D., Velleman, Paul F., Bock, David E. 2005 Stats Data and Models New York, NY: Pearson Addison-Wesley

Class Schedule and Readings

August 30: Course introduction, Data, Displaying and Describing Categorical Data

Read: Chapter 1 through 5

Homework: (Due 9-6): Chapter 2 - Page 12 - 13 Do 2, 6, 10 Chapter 3 - Pages 26 to 34 Do 2,6,8,12,16

September 6: Displaying Quantitative Data, Describing Distributions Numerically, Standard Deviation as a Ruler and Normal Model

Read: Chapter 7 and 8

Homework: (Due 9-13): Chapter 4 - Page 49 to 55 Do 4,12,22 Chapter 5 - Pages 72 - 81 Do 4,6,10,21,24 Chapter 6 - Pages 99 – 102 Do 2,6,12,20,26

September 13: Scatterplots, Association and Correlation, Linear Regression

Read: Chapter 9 to 11

Homework: (Due 9-20): Chapter 7- Pages 132 - 139 DO 2,4,8,12,14 Chapter 8 - Pages 158 - 164 Do 2,4,6,9,12,22,

September 20: Learning Enhancer One – covers Chapter 1 through 5, Regression Wisdom, Re-expressing Data: It's Easier Than You Think, Understanding Randomness,

Read: Chapter 12 and 13

LAST DAY TO SUBMIT HOMEWORK FOR CHAPTERS 2 TO 5

Homework: (Due 9-27):, Chapter 9 Page 179 - 184 Do 2,6,10 Chapter 11 - Page 227 -228 Do 2,4,6,12

September 27: Sample Surveys, Experiments

Read: Chapter 14 and 15

Homework: (Due 10-4): Chapter 12 - Page 248 – 250 Do 2,6,12,18,22 Chapter 13 - Page 267 – 271 Do 2,4,8

October 4: Learning Enhancer #2 (Covers Chapters 6 to 9) From Randomness to Probability, Probability Rules!

LAST DAY TO SUBMIT HOMEWORK FOR CHAPTERS 6 TO 9

Read: Chapter 16 and 17

Homework: (Due 10-11): Chapter 14 - Page 291 - 293 Do 2,4,8,12,14,16,20 Chapter 15 - Page 310-313 Do 2,6,8,10, 24

October 11: Random Variables, Probability Models

Read: Chapter 18 and 19

Homework: (Due 10-18) Chapter 16 Page 325 – 328 Do 6,16,18 Chapter 17 – Page 342 – 345 Do 2, 4, 8, 14

October 18: Sampling Distribution Models, Confidence Intervals for Proportions

Homework: (Due 10-25): Chapter 18 - Page 370 - 373 Do 2,4,8,16,30 Chapter 19 - Page 385-388 Do 2,4,8,10,12,16

October 25: Midterm, (covers Chapters 1 -12) Project presentations
LAST DAY TO SUBMIT HOMEWORK FOR CHAPTERS 10 TO 15
Read: Chapter 20 to 22

November 1: Testing Hypothesis About Proportions, More About Tests, Comparing Two Proportions
Homework: (Due 11-8): Chapter 20 - Page 405 - 409 Do 2,4,6,8,12,20 Chapter 21 - Page 426 – 429 Do 2,4,8,12,14 Chapter 22 - Page 441 – 443 Do 2,6,10,18

November 8: Presentations, Learning Enhancer #3 (Covers Chapter 13 - 18)
Read: Chapter 23 to 25
LAST DAY TO SUBMIT HOMEWORK FOR CHAPTERS 16 THROUGH 20

November 15: Inferences About Means, Comparing Means, Paired Samples and Blocks
Presentation Paper DUE
Read: Chapter 26 and 27
Homework: (Due 11-22): Chapter 23 - Page 472 - 476 Do 2,4,6,10,18,22 Chapter 24 - Page 497 - 502 Do 2,4,6,8(a to c extra credit d and e) 14 Chapter 25 - Page 516 – 521 Do 2,4,6,10,14

November 22: Presentations, Comparing Counts, Inferences for Regression
Read: Chapter 28 and 29
Homework: (Due 11-29): Chapter 26 - Page 541 - 545 Do 2,4,6,10,14,16 Chapter 27 - Page 582 – 590 Do 2,4,8,10,20

November 29: Presentations, Analysis of Variance, Multifactor Analysis of Variance,
Read: Chapter 30

December 6: Presentations, Multiple Regression
LAST DAY TO SUBMIT HOMEWORK FOR CHAPTERS 21 THROUGH 27

December 13: Final (Presentations if necessary)

Note: Students are strongly encouraged to email the Instructor with questions or problems they may be having. I am on campus most days of the week. I check my email on a daily basis even when I am not on campus. Many questions can be resolved if you email me. I am happy to respond.

University Policies

Students should refer to the Undergraduate Bulletin for procedures regarding add/drop and withdrawals.

Physically challenged/Special Needs

Students with special needs (physical handicaps, learning disabilities, English as a second language) should identify themselves so that the appropriate arrangements can be made.

Note: The instructor reserves the right to adjust and modify the syllabus as needed throughout the semester. Attendance guarantees that the student will be apprised of all changes.