

Cleveland State University
Levin College of Urban Affairs
Department of Urban Studies
Instructor: Winifred Weizer

Urban Data Analysis (UST 404 Section 1) UR 106
Spring Semester, 2008 MWF 9:45-10:50am
Email: w.weizer@csuohio.edu

Office hours: (UR217) By appointment Phone: 216-687-2136 (leave message)

Course Description: This course is a four credit course 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.

Course Objective: This course focuses on knowledge and skill development in the statistical area. The objective of the course is to prepare the student to become a producer of empirical analyses in the future.

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 project. Student success is enhanced by keeping up to date with *required* readings. Class attendance is also critical to the student being successful. In order to encourage the student to look through the material before class the attendance will be taken throughout the semester by means of a brief quiz on the reading material. Students are also strongly encouraged to print out copies of the instructor's PowerPoint presentations. These are accessible in .pdf format (3 up with lines for taking notes). They can be accessed from the "n" drive when using a Levin College computer. The student can also access them from home via the internet 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. Please note final submission dates for homework. ***The instructor will not accept homework after final submission dates.*** The four 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	15%
Project	10%
4 learning enhancers	5% each
Midterm	15%
Final	20%

Grading scale: 95- 100 A 94-90 A- 89-87 B+ 86-83 B 82-80 B- 79-75 C+
74-70 C 60- 69 D

Change in schedule/requirements: This syllabus is a **guide** to the semester schedule and its requirements. The instructor *reserves the right to change this syllabus and any of its contents* at any time during the course by notifying students verbally or by written addendum.

Exam attendance is required. Makeup exams will **only** be given with the **prior approval** of the instructor. Late assignments are subject to a 5% grade penalty per week they are late.

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

Descriptive Statistics

January 14 to 19: Course introduction, Data,

Read: Chapter 1 through 3

Homework: (Due 1-23): Chapter 2 - Page 15 – 18 Do 2, 8, 12, 24

January 21 to 26: Displaying and Describing Categorical Data, Displaying and Summarizing Quantitative Data

Read: Chapter 4 & 5

Homework: (Due 1-28): Chapter 3 - Pages 37 to 45 Do 2 (can be from internet), 6, 8, 12, 16 Note – you can use a spreadsheet program to do any displays or graphs.

January 21: Martin Luther King Holiday – University closed

January 25: Last day to drop (by 8:00 p.m.)

January 28 to February 2: Finish Displaying and Summarizing Quantitative Data, Understanding and Comparing Distributions

Read: Chapter 6

Homework: (Due 2-6): Chapter 4 - Page 71 to 78 Do 10, 14, 16, 18 (use calculators) Chapter 5 - Pages 99 - 110 Do 8, 10, 22, 24

February 4 to 9: Learning Enhancer #1 (Covers Chapters 1 to 4), The Standard Deviation as a Ruler and the Normal Model,

Read: Chapter 7 and 8

LAST WEEK TO SUBMIT HOMEWORK FOR CHAPTERS 2 and 3

Homework: (Due 2-13):, Chapter 6 - Pages 134 – 139 Do 2, 6, 16, 30, 34

Modeling

February 11 to 16: Scatterplots, Association and Correlation, Linear Regression

Read: Chapter 9

Homework: (Due 2-20): Chapter 7- Pages 174 - 181 DO 2, 8, 12, 16

February 18 to 23: Finish Linear Regression, Regression Wisdom

LAST WEEK TO SUBMIT HOMEWORK FOR CHAPTERS 4, 5 and 6

Read: Chapter 11 and 12

Homework: (Due 2-27): Chapter 8 - Pages 204 – 212 Do 2, 4, 6, 10, 26

Chapter 9 Page 231 - 237 Do 2, 6, 12

February 18: President's Day, No Class

February 25 to March 1: Learning Enhancer # 2 (Covers Chapters 5 to 9)

Understanding Randomness, Sample Surveys

Read: Chapter 13

Homework: (Due 3-7) Chapter 11 -Page 283 -285 Do 2, 6, 12

March 3 to March 8: Midterm, Finish Sample Surveys, Experiments and Observational Studies

Read: Chapter 14 and 15

Homework: (Due 3-19): Chapter 12 - Page 308 – 311 Do 2, 6, 12, 18 Chapter

13 - Page 332 – 336 Do 4, 8, 14, 34

LAST DAY TO SUBMIT HOMEWORK FOR CHAPTERS 7 TO 9

March 10 to March 16: Spring Break – No Class !!

Probability

March 17 to March 22: From Randomness to Probability, Probability Rules!

Homework: (Due 3-26): Chapter 14 - Page 361 – 365 Do 4, 6, 14, 20 Chapter

15 - Page 385 - 389 Do 2, 6, 8, 20

Read: Chapter 16 and 17

March 24 to March 29: Learning Enhancer #3 (Covers Chapter 11-13) Random Variables, Probability Models

Homework: (Due 4-2): Chapter 17 – Page 423 – 427 Do 6, 10

March 28: Last day to withdraw (By 8:00 pm)

LAST DAY TO SUBMIT HOMEWORK FOR CHAPTERS 10 TO 13

Read: Chapter 18 and 19

Inferential Statistics

March 31 to April 5: Sampling Distribution Models, Confidence Intervals for Proportions

Homework: (Due 4-9): Chapter 18 - Page 456 - 459 Do 2, 4, 8, 16, Chapter 19

- Page 476 - 480 Do 2, 4, 8, 10, 12, 16

Read: Chapter 20 and 21

April 7 to April 12: Learning Enhancer #4 (Covers Chapter 14 to 16) Testing Hypothesis About Proportions, More About Tests

Homework: (Due 4-16): Chapter 20 - Page 498 - 501 Do 2, 4, 6, 12, 20

Chapter 21 - Page 522 – 525 Do 2, 4, 8, 12

April 11: Project Paper DUE

LAST DAY TO SUBMIT HOMEWORK FOR CHAPTERS 14 TO 17

Read: Chapter 23 and 24

April 14 to April 19: Inferences About Means, Comparing Means

Homework: (Due 4-18): Chapter 23 - Page 574 - 579 Do 2, 6, 10, 18 Chapter 24 - Page 602 - 609 Do 2, 4, 6,

Read: Chapter 26 and 28

April 21 to April 26: Comparing Counts, Analysis of Variance

LAST DAY TO SUBMIT HOMEWORK FOR CHAPTERS 18 TO 21

April 28 to May 3: Analysis of Variance

LAST DAY TO SUBMIT HOMEWORK FOR FINAL CHAPTERS

May 5th—8:30-10:30 a.m.: Final

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. The Office of Disability Services provides additional assistance for those students who have special needs. Further information about services provided can be found online at <http://www.csuohio.edu/clc/disability/>. Students can contact the office at 687-2015.

Questions regarding the university calendar (holidays and finals week schedule) can be resolved by using the following link to the registrar's office.

<http://www.csuohio.edu/registrar/calendar.html>