

Math 1150 - Introduction to Statistics

Bowling Green State University
Department of Mathematics and Statistics
Fall 2009
TR 9:30-10:45 MSC 302

Instructor: Dr. Maria Rizzo

email: mrizzo

Office: 413 MSC (419)-372-7474

Textbook: *Statistics Concepts and Controversies* (7th edition) 2008 by David S. Moore, William I. Notz. Publisher: Freeman, **ISBN-10:** 1429237023 **ISBN-13:** 978-1429237024

Calculator: The purchase of a calculator with statistics capabilities such as the TI-30XIIS, the TI-83 Plus or TI-84 Plus is highly recommended

Catalog Description: Description of data, binomial and normal distributions, estimation and testing hypotheses for means and proportions. Prerequisites: Two years high school algebra, one year of geometry and a satisfactory placement exam score.

General Description: The main objective of MATH 1150 is to give the non-mathematical student an elementary introduction to the practice of statistics. This course will give insight into how a statistician gathers, summarizes, and draws conclusions from data. We are surrounded everyday by numerical information and graphical material. At the end of the course, the student should be a critical consumer of this information.

Prerequisite: Math 0950 or equivalent

Topics:

Part I: Producing Data (5 chapters)

Chapter 1. Where Do Data Come From?

Chapter 2. Samples, Good and Bad

Chapter 4. Sample Surveys in the Real World (omit stratified and probability sampling)

Chapter 5. Experiments, Good and Bad

Chapter 9: Do the Numbers Make Sense?

Part II: Organizing Data (6 chapters) Chapter 10. Graphs, Good and Bad

Chapter 11. Displaying Distributions with Graphs

Chapter 12. Describing Distributions with Numbers

Chapter 13. Normal Distributions

Chapter 14. Describing Relationships: Scatterplots and Correlation

Chapter 15: Describing Relationships: Regression, Prediction, and Causation

Part III: Chance (1 chapter)

Chapter 17: Thinking about Chance

Part IV: Inference (2 chapters)

Chapter 21: What Is a Confidence Interval?

Chapter 22: What is a Test of Significance?

Grading:

Quizzes	50
Exam 1	100
Exam 2	100
Final Exam – Tuesday, Dec. 15 8:30-10:30 AM	<u>150</u>
TOTAL	400

The course grade will be determined by the percentage of total points earned:
90%-100% A, 80%-89% B, 70%-79% C, 60%-69% D, <60% F.

Codes of Conduct: The instructor and students in this course will adhere to the University's general Codes of Conduct defined in the *BGSU Student Handbook*.

Additional Resources:

MAST: Math and Stats Tutoring Center <http://www.bgsu.edu/offices/acen/mathlab>
419-372-8009 308 Moseley Hall