

STATISTICS (MATH 167) – ROOM D 122
T/R 2:30-3:45
CRN 10778
INSTRUCTOR – BARBARA MAURICE
SPRING 2010
OFFICE - ROOM 206; PHONE 383-5221
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COURSE DESCRIPTION

Prerequisite: Acceptable placement score or MAT 137. This course introduces the basic concepts of statistics as they apply primarily to business, the technologies, and the social sciences. The topics include: methods of summarizing data, measures of central tendency and dispersion, correlation and linear regression, basic probability, binomial and normal distributions, hypothesis testing for one or two populations, confidence intervals, and distributions.

TEXTBOOK

Elementary Statistics by Mario F. Triola, Eleventh Edition. A TI83 calculator is required.

TENTATIVE SCHEDULE

| | | | |
|---|------------|---|---------|
| R | 1/21 | Introduction | 1.2-1.5 |
| T | 1/26 | Summarizing and graphing data | 2.2-2.3 |
| R | 1/28 | Measures of center and variation | 3.2-3.3 |
| T | 2/2 | Measures of relative standing | 3.4 |
| T | 2/9 | Fundamentals of probability | 4.2 |
| R | 2/11 | TEST #1 (CH. 2-3) | |
| T | 2/16 | Addition rule, multiplication rule | 4.3-4.4 |
| R | 2/18 | Complements and conditional probability | 4.5 |
| T | 2/23 | Counting and review | 4.7 |
| R | 2/25 | Random variables | 5.2 |
| T | 3/2 | Binomial probability distributions, mean and standard deviation | 5.3-5.4 |
| R | 3/4 | Standard normal distribution | 6.2 |
| | 3/7 – 3/13 | Spring Break – Classes Not in Session | |
| T | 3/16 | TEST #2 (CH. 4-5) | |

| | | | |
|---|------|---|------|
| R | 3/18 | Applications of normal distributions | 6.3 |
| T | 3/23 | Central limit theorem | 6.5 |
| R | 3/25 | Normal distribution as approximation to binomial distribution | 6.6 |
| T | 3/30 | Estimating a population mean: σ known | 7.3 |
| R | 4/1 | Estimating a population mean: σ unknown | 7.4 |
| T | 4/6 | Basics of hypothesis testing | 8.2 |
| R | 4/8 | TEST # 3 (CH. 6-7) | |
| T | 4/13 | Testing a claim about a mean: σ known | 8.4 |
| R | 4/15 | Testing a claim about a mean: σ unknown | 8.5 |
| T | 4/20 | Inferences about two means: independent samples | 9.3 |
| R | 4/22 | Inferences about two means: matched pairs | 9.4 |
| T | 4/27 | Correlation | 10.2 |
| R | 4/29 | Regression | 10.3 |
| T | 5/4 | Review | |
| R | 5/6 | TEST #4 (CH. 8-10) | |
| T | 5/11 | Make – up | |
| R | 5/13 | To be used as needed | |

5/27 Grades available on web: www.trcc.commnet.edu

Attendance/Homework/Requirements

It is strongly suggested that students make every effort to attend ALL classes. More than three absences during the semester will jeopardize the student's success in the course. Homework will be assigned on a daily basis. All homework assignments must be completed. Students will be required to have a two-section math notebook. One section is to be dedicated to class notes while the other section will be dedicated to homework. The student's math notebook should be available to the instructor at each class. Students are allowed to use a calculator. **Cell phones may not be used as a calculator and must be turned off during class.**

Methods of Evaluation/Make-ups

Tests will be announced. Unannounced quizzes may be given at the discretion of the instructor. Tests that are missed for any reason cannot be made up (with the exception of snow conditions). If a student misses one of the first three tests, a make-up test will be given at the end of the semester. A student can also use this make-up test to replace their lowest test grade. Final grades will be assigned according to the following:

| <u>CLASS AVERAGE</u> | <u>FINAL GRADE</u> |
|----------------------|--------------------|
| 90 -100 | A- / A |
| 80 - 89 | B- / B+ |
| 70 - 79 | C- / C+ |
| 60 - 69 | D- / D+ |
| Below 60 | F |

Statement on Disabilities

If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact the Disabilities Counseling Service at 383-5240. To avoid any delay in the receipt of accommodations, you should contact the counselor as soon as possible. Please note that I cannot provide accommodations based upon disability until I have received an accommodation letter from the Disabilities Counselor. Your cooperation is appreciated.

Class Cancellation

The Three Rivers web site provides a full listing of radio and television stations that alert students to school closings and delays. Go to: www.trcc.commnet.edu. and click on General Information and Weather Procedures.

TENTATIVE HOMEWORK ASSIGNMENTS

1.2 5-12

1.3 5 – 20

1.4 5 – 8, 21 ,29; pg. 40: 3 – 8

2.2 5 – 8, 13 – 16, 18, 19, 21

2.3 5 – 11, 13

Chapter 2 Review (pg. 76) 1, 2, 4, 8

3.2 5 – 9, 11, 15, 17, 21, 29 – 31, 33, 34

3.3 5 – 9, 11, 15, 17, 29 – 31, 33 – 36

3.4 5-26

Chapter 3 Review (pg. 130) 1, 3, 4, 6

4.2 5 – 15, 25, 33, 34

4.3 5 – 12, 15, 17 – 20, 21 – 37 odd

4.4 5 – 16, 21, 22, 27, 29

4.5 5 – 11, 13, 18, 19 – 26, 28

4.7 5 – 18, 25 – 35 odd

Chapter 4 Review (pg. 195) 1 – 10

5.2 4 – 13, 15 – 21 odd, 25 – 29 odd

5.3 6 – 8, 13 – 41 odd

5.4 5 – 17 odd

Chapter 5 Review (pg. 241) 4, 5

6.2 5 – 51 odd

6.3 5 – 27 odd

6.5 5 – 10, 13, 15

6.6 5 – 17, 19, 25, 26

Chapter 6 Review (pg. 319) 1 – 4, 7, 9

7.3 5 – 23, 25, 27

7.4 5 – 14, 19, 21, 27, 29, 30

Chapter 7 Review (pg. 382) 1, 4, 5, 9

8.2 9 – 24

8.4 5, 7, 8, 9, 11, 13, 15, 19 (no p values)

8.5 5 – 8, 13, 15, 17, 19, 25, 27 (no p values)

Chapter 8 Review (pg. 452) 1, 2, 3, 5

9.3 9, 11, 13, 15

9.4 5, 11, 13

10.2 5, 7, 9, 13, 15, 17, 19, 21, 23

10.3 5, 7, 9, 13, 15, 17, 19, 21, 23