

STATISTICS (MATH 167) – ROOM D122
T/R 2:30 - 3:45
CRN 10778
INSTRUCTOR – BARBARA MAURICE
SPRING 2011
OFFICE - ROOM C 206; PHONE 383-5221
OFFICE HOURS: MW 1:00 – 2:00; T/R 12:00 – 1:00
HOME PHONE – 887-6419
E-MAIL: bmaurice@trcc.commnet.edu

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.

MAT167 Course Outcomes

1. Construct and interpret histograms, stem leaf plots, and frequency tables for sets of data.
2. Find mean, median, mode, range, standard deviation, deciles, and quartiles.
3. Calculate linear correlation coefficient; find equation of regression line and use equation to predict values.
4. Apply the basic rules of addition, multiplication, and counting. Find conditional probability.
5. Construct contingency tables and use to find probabilities.
6. Determine if data satisfies a probability distribution.
7. Know when to use the binomial distribution, standard normal distribution, or a normal distribution as an approximation to a binomial distribution.
8. Know when to apply the Central Limit Theorem.
9. Determine confidence intervals for means and proportions and find sample sizes necessary for statistical analysis.

TEXTBOOK

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

TENTATIVE SCHEDULE

R	1/20	Introduction	1.2-1.3
T	1/25	Summarizing and graphing data	2.2-2.3
R	1/27	Measures of center and variation	3.2-3.3
T	2/1	Measures of relative standing	3.4

R	2/3	College Professional Day – Classes Not in Session	
T	2/8	Fundamentals of probability	4.2
R	2/10	TEST #1 (CH. 2-3)	
T	2/15	Addition rule, multiplication rule	4.3-4.4
R	2/17	Complements and conditional probability	4.5
T	2/22	Counting and review	4.7
R	2/24	Random variables	5.2
T	3/1	Binomial probability distributions, mean and standard deviation	5.3-5.4
R	3/3	Standard normal distribution	6.2
T	3/8	TEST #2 (CH. 4-5)	
R	3/10	Applications of normal distributions	6.3
	3/13-3/19	SPRING BREAK	
T	3/22	Central limit theorem	6.5
R	3/24	Normal distribution as approximation to binomial distribution	6.6
T	3/29	Estimating a population mean: σ known	7.3
R	3/31	Estimating a population mean: σ unknown	7.4
T	4/5	Basics of hypothesis testing	8.2
R	4/7	TEST # 3 (CH. 6-7)	
T	4/12	Testing a claim about a mean: σ known	8.4
R	4/14	Testing a claim about a mean: σ unknown	8.5
T	4/19	Inferences about two means: independent samples	9.3
R	4/21	Inferences about two means: matched pairs	9.4
T	4/26	Correlation	10.2
R	4/28	Regression	10.3

T 5/3 Review

R 5/5 TEST #4 (CH. 8-10)

T 5/10 Make – up

R 5/12 To be used as needed

T 5/17 To be used as needed

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.

Classroom Behavior

This is a college course for committed students, and I expect you to maintain proper decorum in the classroom. All cell phones, Blackberries, text messaging devices, etc....must be turned off during class. All MP3 players, laptops, and other electronic devices must be turned off as well.

Treat your fellow students and your instructor with maturity and respect at all times. Immature behaviors will simply not be tolerated; if I am forced to address a behavior issue more than once, you will be asked to leave and not return to class.

Communications regarding closings, cancellations, and delays: In the event a decision is made to cancel or delay classes or to close school completely, this decision will be communicated in the following ways:

Radio and Television Announcements will be made on the following stations:

- TV Channel 3 – WFSB
- TV Channel 30 – WVIT NBC Connecticut News 30
- TV Channel 8 – WTNH
- WTIC/WRCH/WZMX Radio – Hartford
- WICH/WCTY/WNLC/WKNL Radio – Norwich/New London
- WSUB/Q105 Radio – Groton/New London
- WINY Radio – Putnam
- WADK Radio – Westerly
- WILI Radio – Willimantic
- WDRC Radio – Hartford

The College's website will also have announcements regarding any delays, cancellations or closings. This information may be obtained by accessing www.trcc.commnet.edu.

The myCommnet Alert Notification System will also be used to deliver important information to students, faculty, and staff regarding weather-related class cancellations. The system delivers both email messages, and text messages over cellular phones to those individuals who are registered. To register, log on to your myCommnet account at <http://my.commnet.edu> and follow the link to myCommnet Alert.

TENTATIVE HOMEWORK ASSIGNMENTS (ASK “BOB”)

1.2 5-12

1.3 5-8

2.2 5-8, 13-18

2.3 5-10

3.2 5, 6, 8-11, 13, 14, 17, 19, 25, 26

3.3 5, 6, 8-11, 13, 14, 17, 19, 25, 26

3.4 5-26

4.2 5-13, 15, 17, 19, 21, 25-28

4.3 5, 7-20

4.4 2-11, 13, 15-20, 22, 23

4.5 5-24

4.7 1, 5-17, 19, 21, 23, 25-28, 30, 31, 32, 35

5.2 1-10, 13, 15, 17, 18, 19, 21

5.3 13, 15-29, 31, 36

5.4 1-13, 15, 17, 19

6.2 9-40

6.3 5-18, 21, 23

6.5 5-9, 11, 13, 15, 17, 18, 19, 23, 27, 28

6.6 5-17 odd, 18, 25

7.3 9-19 odd, 25, 27, 29, 33, 35

7.4 5-14, 17, 20, 23

8.2 9-24

8.4 11, 13, 15, 17

8.5 5-8, 17, 19, 20, 21, 23, 28

9.3 9, 11, 13, 15, 17

9.4 5, 11, 13

10.2 7, 9, 17, 21

10.3 8, 9, 17, 21