EFFECTIVE: MAY 2005
CURRICULUM GUIDELINES

A. Division: Instructional

Effective Date: May 2005

B. Department / Program Area: Commerce & e

M: Course Objectives / Learning Outcomes

At the end of the course, the successful student should be able to:

1.   collect statistical data using appropriate sampling techniques;

2.   organize statistical data and calculate measures of central tendency and variation;

3.   calculate the probability of events when they are mutually exclusive, independent and dependent;

4.   use binomial and normal distribution to make probability estimates;

5.   set up confidence intervals for population means and proportions;

6.   use sample information to test statements or claims about parameters;

7.   use computer spreadsheets to solve statistical problems;

8.   use simple regression to determine significance of relationship between two variables.

N: Course Content:

1.   Descriptive Statistics: frequency distributions, graphical displays, measures of central tendency, measures of dispersion.

2.   Probability: experiments, counting rules, assigning probabilities, events, complement, exclusion, intersection, union, addition law, conditional probability.

3.   Discrete Probability Distributions: expected value and variance, binomial distribution.

4.   Continuous Probability Distributions: uniform and normal probability distributions.

5.   Sampling Distributions: random sampling, sampling distribution of sample mean and sample proportion.

6.   Interval Estimation: means and proportions, small and large samples, determining sample size.

7.   Hypothesis Testing: formulating and testing a research hypothesis, 1 and 2 tailed tests about sample mean and proportion, Type 1 and 2 error.

8.   Statistical Inference with Two Populations (independent samples): interval estimation and hypothesis tests for difference between two means and between two proportions.

9.   Computer Analysis with Excel Spreadsheets: creation of spreadsheets, histograms, frequency tables, scatter charts, interval estimates, and use of probability distribution functions.

10. Simple Linear Regression: least squares, model and assumption, R-Squared, prediction.

O: Methods of Instruction

Lectures and seminars.

P: Textbooks and Materials to be Purchased by Students

Anderson, D.R., Sweeney et al. <u>Statistics for Business and Economics</u>, Latest Ed. South-Western (Thomson).

Business Calculator: one of:
- Texas Instruments BAII+
- Texas Instruments BA35
- Hewlett Packard 10B
- Sharp EL-733a

Q: Means of Assessment

Final Exam	30%
Term Examinations (2-3)	40% - 50%
Computer Lab Test	5% - 10%
Assignments (6-12)	15% - 25%
Participation	0% - 5%
	100%

R: Prior Learning Assessment and Recognition: specify whether course is open for PLAR

           No.

Course Designer(s): George Stroppa   Education Council / Curriculum Committee Representative

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Dean / Director: Jim Sator   Registrar: Trish Angus