



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. Statistics for Business and Economics, 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	<u>0% - 5%</u>
	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

Dean / Director: Jim Sator

Registrar: Trish Angus

© Douglas College. All Rights Reserved.