SAULT COLLEGE
of Applied Arts and Tech ;o!ogy
Sault Ste. Marie

COURSE OUTLINE

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MATHEMATICS

MTH 262-4

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MATHEMATICS

MTH 262-4

<u>TEXT</u>:

Richard Levin   Statistics for Management
                                       - Prentice Hall

<u>REFERENCES</u>:

J. E. Freund & F. J. Williams   Modern Business Statistics
                                       - Prentice Hall

Tanus & Others   Statistics: A Guide to the Unknown
                                       - Hoiden-Day

Croxton, Cowden & Klein   Applied General Business Decision
                                       - Prentice Hall

Spurr and Bonini   Statistical Analysis for Business Decision
                                       - Richard Irwin

Yamane   Statistics: An Introductory Analysis
                                       - Harper & Row

Clark and Schkade   Statistical Methods for Business Decisions
                                       - South Western Publishing Co.

McElroy   Applied Business Statistics
                                       - Hoiden-Day

NOTES:

This is the first semester of Business Statistics and most of the term is spent en descriptive statistics. Hence, a fair amount of time should be spent on topics such as Summation Notation; Mean, median and mode; Standard Deviation and other measures of Variation.

The graphs of distribution, such as histograms, frequency polygons etc. should be studied in depth, since these refer again throughout the course.

The chapter on probability is time consuming and can become complicated especially if problems from ether texts are used.

The study of the Theoretical Distributions will take up the latter one-third of the term and since this topic is difficult and the basis of future work; much time should be allowed for it.

Use of calculators is almost essential in working the problems. The students should be encouraged to buy calculators with square root and square keys.

TOPICAL OBJECTIVES:

The students are expected to learn the following:

Introduction: definition of statistics, differences between
                inductive and descriptive statistics, some
                applications of statistics, the use of summation
                notation in writing formulas.

Frequency Distributions   how to construct a frequency table, the
                          graphical presentation of distributions
                          such as histograms frequency polygons,
                          ogives.

Measures of Location: the calculation and usage of the arithmetic
                        mean, median and mode, the short cut method
                        is preferred in these calculations, the cal-
                        culation and usage of quartiles, deciles and
                        percentiles.

Measures of Spread on Variation: The calculation and interpretati'
                                   of standard deviation and some k:
                                   ledge of other measures of varia-
                                   the short cut method is preferai
                                   in calculations of grouped data.

Probability: :he meaning and history of probability. Its applic
               to the games of chance. The rules of probability s
               as addition and multiplication rules are necessary.
               Mathematical expectation is studied as an example of
               applications of probability.

Theoretical Distributors: an understanding of binomial distribute
                            is necessary before a study of normal d,
                            tribution is undertaken, normal distrib
                            applications should be understood as it
                            an important role in statistics.

Sampling Distributions: the usage of random number tables and sam;
                          methods should be understood, also the Ce:
                          Limit Theorem and its applications.

Interval Estimation: this section involves the calculation of con
                       ence intervals for means (large and small) a:
                       proportions, calculation of the sample size
                       standard error are also included.

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11   <u>Estimation</u>   Pages

Point and internal estimation,
criteria of good estimator,
large and small sample estimation
for mean and the proportions.
Determination of sample size.

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