

SAULT COLLEGE
of Applied Arts and Technology
Sault Ste. Marie

COURSE OUTLINE

MATHEMATICS AIAWISS SU.
MTH 276-4

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NOTES:

This semester of Business Statistics deals primarily with inductive statistics and the first two or three topics should be treated extensively and with plenty of time. The students generally have difficulty understanding hypothesis testing and confidence coefficients.

The other topics such as regression and correlation and time series are of interest to business students and consequently, they enjoy the topics and understand them.

Sketching and interpretation of graphs is very important in the chapter on time series. Extra time should be spent on this topic.

Use of mini-calculators is almost essential in working the problems in the chapters on time series, chi square, regression and correlation. The teacher should recommend that the students buy calculators with square root keys.

14	<p><u>Testing Hypotheses</u></p> <p>Introduction to testing hypotheses, types of errors, level of significance, one tail and two tails tests, testing for means - large and small samples, testing for proportions, testing for differences between means and proportions</p>	Pages 241-281
	<p><u>Chi-Square Tests</u></p> <p>Chi-square test for testing in dependence, contingency tables, Chi-square test for goodness of fit, analysis of variance and F-test.</p>	Pages 285-313
10	<p><u>Regression and Correlation Analysis</u></p> <p>Scatter diagrams, estimation using the regression line, method of least squares, standard error of estimates, prediction intervals, co-efficient of determination and correlation.</p>	Pages 318-358
	<p><u>Non-parametric Methods</u></p> <p>Advantages and disadvantages, sign test, Mann-Whitney V-test, Run test, Rank Correlation test</p>	Pages 377-409
	<p><u>Time Series</u></p> <p>Components of time series, trend analysis, fitting trend by method of least squares, coding, projecting with trend, cyclical variations., seasonal variations, ratio-to-moving average method, uses of seasonal index.</p>	Pages 413-42C
	<p><u>Index Numbers</u></p> <p>Definition, types of index numbers, unweighted aggregates index, laspeyres methods, average relatives, quantity and value indices.</p>	426-446