

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY
SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

COURSE TITLE: STATISTICS
CODE NO.: MTH 2 7 6-4 SEMESTER: IV
PROGRAM: BUSINESS (ACCOUNTING)
AUTHOR: W.O. MAKI
DATE: JULY 1992 PREVIOUS OUTLINE DATED: JUNE 1991

APPROVED:

DB<N



July 16/92
DATE

STATISTICS

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TOTAL CREDIT HOURS: 64

PREREQUISITE(S): MTH 262

I. PHILOSOPHY/GOALS:

The student will study confidence limits, hypothesis testing, Chi-square and analysis of variance and their applications to business, regression and correlation.

II. STUDENT PERFORMANCE OBJECTIVES:

The basic objectives are that the student develop an understanding of the methods studied, demonstrate a knowledge of the facts presented and show an ability to use these in the solution of problems. To accomplish these objectives, exercises are assigned. Test questions will be of near equal difficulty to questions assigned in the exercises. The level of competency demanded is the level required to obtain an overall passing average on the tests. The material to be covered is listed below. fl

III. TOPICS TO COVERED:

TIME FRAME:

- | | |
|--|----------|
| 1. Hypothesis Testing | 20 hours |
| 2. Chi-square and Analysis of Variance | 20 hours |
| 3. Regression and Correlation | 20 hours |

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IV. LEARNING ACTIVITIES:

REQUIRED RESOURCES:

HYPOTHESIS TESTING

Text: Ch. 8

- 1.1 Basic concepts
- 1.2 Testing of means
- 1.3 Testing of proportions
- 1.4 Testing for differences between means and proportions

Questions

13	25	pp.	356	357
26	33	pp.	361	362
38	43	pp.	369	
44	51	pp.	372	373
52	69	pp.	391	393

2.0 CHI-SQUARE AND ANALYSIS OF VARIANCE

Text: Ch. 9

- 2.1 Chi-square test for independence
- 2.2 Chi-square test for goodness of fit
- 2.3 Analysis of variance
- 2.4 Inferences about population variance
- 2.5 Inferences about two population variances

Questions:

1 - 5 :	pp.	416	417
6 - 12 :	pp.	428	429
14 - 24	pp.	434	435
26 - 38	pp.	447	450
39 - 47	pp.	455	456
48 - 54	pp.	460	461

3.0 REGRESSION AND CORRELATION

Text : Ch. 10

- 3.1 Estimation using regression line
- 3.2 Estimation using regression equation
- 3.3 Correlation analysis and standard error
- 3.4 Using regression and correlation

Questions:

1 - 12:	pp.	484	--	485
13 - 24	pp.	502	--	505
25 - 32	pp.	512	--	513
33 - 40	pp.	517	--	518

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V. EVALUATION METHODS: (INCLUDES ASSIGNMENTS, ATTENDANCE REQUIREMENTS ETC.)

4 TESTS:

- weighting may differ according to instructor
- A+, A, B, C and R grades used
- attendance and grading policy explained on handout

VI. REQUIRED STUDENT RESOURCES:

Statistics for Management - 5th ed.
Levin and Rubin
Prentice-Hall

VII. SPECIAL NOTES:

Students with special needs (e.g. physical limitations, visual impairments, hearing impairments, learning disabilities) are encouraged to discuss required accommodations confidentially with the instructor.

Your instructor reserves the right to modify the course as he/she deems necessary to meet the needs of students.