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

COURSE OUTLINE

| Course Title: | STATISTICS | | |
|---------------|-------------------------------------|--|--|
| Code No. | MTH 270-4 | | |
| Program: | ARCHITECTURAL AND CIVIL TECHNICIANS | | |
| Semester: | FOUR | | |
| Date: | JULY, 1989 | | |
| Autnor: | W. MAKI | | |
| | | | |
| | | | |

New: 'Revision:

APPROVED: '/vb^V

Daife v

FIDi?(W[

¹JUL 14 1SS9

CAUL! CuU-tik UttftAlG
"'^ SAUL? SIS MAHE

ti.iP-

- 2. -

CALENDAR DESCRIPTION

STATISTICS

MTH 270-4-ARC/CIVIL

Course Name

Course Number

PHILOSOPHY/GOALS:

This course will help the student to develop an understanding of statistical techniques and procedures. They would be able to carry out basic statistical tasks and better understand the use of statistics in industry.

METHOD OF ASSESSMENT (GRADING METHOD):

The student will be assessed by tests. These tests will include periodic tests based upon blocks of subject matter and may, at the instructor's discretion include unannounced surprise tests on current work and/or a final test on the whole course. A letter grade will be based upon a student's weighted average of his test results. See also the mathematics department's annual publication "To The Mathematics Student" which is presented to the students early in each academic year.

TEXTBOOK(S):

"Statistics and Probability in Modern Life", 3rd Edition, Newmark (Saunders Publishing)

MTH270-4..ARCHICTECURAL/CIVIL...3

| TOPIC | PERIODS | TOPIC DESCRIPTION | REF | EREN |
|-------|---------|---|-----|------|
| 1 | 1 | Introduction | pp. | 3-1 |
| | | definition, development and scope of statistics | | |
| 2 | 5 | Descriptive Statistics | pp. | 21- |
| | | quantative and qualitative data discrete and continuous variables frequency tables, histograms, frequency polygon, cumulative frequency polygon | | |
| 3 | 8 | Measures of Location £ Variation | pp. | 65- |
| | | summation notations means and weighted mean median mode range, variance mean deviation standard deviation | | |
| 4 | 3 | <u>Probability</u> | pp. | 112 |
| | | meaning and types of probability probability computations permutations combinations dependent and independent events (Omit Bayes Theorem) | | |
| 5 | 12 | Probability Distributions | pp. | 214 |
| | | definition, binomial distribution only and its mean and standard deviation normal distribution and normal approximation of the binomial | | |

- (Omit Poisson and Hypergeometric)

MTH27G-4..ARCHITECTURAL/CIVIL...4

| TOPIC | PERIODS | TOPIC DESCRIPTION | REFEREN |
|-------|---------|---|----------|
| 6 | 5 | Sampling | pp. 309 |
| | | - sampling methods, Central Limit Theorem | |
| 7 | 8 | Estimation | pp. 341- |
| | | interval estimate of means and proportions, sample size | |
| 8 | 8 | Linear Regression f Correlation | pp. 422- |
| | | method of least squares, scatter diagrams, coefficient of correlation, standard error | |