SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: STATISTICS

Code No.: MTH 255-4
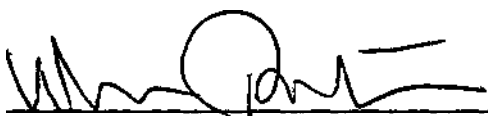
Program: FORESTRY & GEOLOGY

Semester: THREE

Date: AUGUST 1988

Author: J. MCGAULEY

New: Revision;   **X**

APPROVED: _____   **0>^** _2<}/0f>_

Chairperson   Date

CALENDAR DESCRIPTION

STATISTICS   MTH 255-4-FT/GT

COURSE NAME   COURSE NUMBER

PHILOSOPHY/GOALS:

This course will help the student to develop an understanding of
statistical techniques and procedures by solving statistical problems
and through computer applications. The student will be able to carry
out basic statistical tasks and better understand the use of
statistics in industry.

METHOD OF ASSESSMENT (GRADING METHOD):

The student's final mark for this course will be based on the
following:

Five topic tests	70%
Minitab exam	15%
Minitab assignments	15%

Grades reported on your transcript are based on a weighted average of
test scores on the following basis:

A+	= 90 - 100%
A	= 80 - 89%
B	= 65 - 79%
C	= 55 - 64%
R or X	= 0 - 54%

The method of calculating a weighted average is described in your
student handbook.

All tests are scheduled in advance. Hence attendance is mandatory.
Unexcused absence from a test will result in a mark of zero for that
test. A student may be prevented from attending a test by illness or
bereavement. Upon return to classes, the student must see the
instructor at the end of the first class attended to arrange a time
and place for a make up test. In addition, if the absence is due to
illness, the student must present a note from the student's doctor or
from the College nurse.

TEXTBOOK:

"Statistics and Probability in Modern Life", 4th Edition, Newmark
(Saunders Publishing)

MTH255-4-FORESTRY/GEOLOGY

TOPIC	PERIODS	TOPIC DESCRIPTION	REFERENCE
1	1	<u>Introduction</u> - definition, development and scope of statistics	pp. 3-19

2	3	<u>Descriptive Statistics</u>
		
		- quantative and qualitative data
		- discrete and continuous variables
		- frequency tables, histograms,
		    frequency polygon, cumulative
		    frequency polygon
			pp. 23-85

3	6	<u>Measures of Location & Variation</u> - summation notations - means and weighted mean - median, mode - range, variance mean deviation - standard deviation	pp. 89-148
4	5	<u>Probability</u> - meaning and types of probability - probability computations - permutations - combinations dependent and independent events - (Omit Bayes Theorem)	pp. 151-207

5	5	<u>Probability Distributions</u>
		
		- definition, binomial distribution
		  only and its mean and standard
		  deviation
		- normal distribution and normal
		  approximation of the binomial
		- (Omit Poisson and Hypergeometric)
		- Minitab introduction and assignment
			pp. 257-349

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MTH255-4-STATISTICS FOR FORESTRY/GEOLOGY

TOPIC	PERIODS	TOPIC DESCRIPTION	REFERENCE
6	6	Sampling - sampling methods, Central Limit Theorem - Minitab application^)	pp. 353-382
7	8	Estimation - interval estimate of means and proportions, sample size - Minitab applications)	pp. 386-416
8	8	Hypothesis Testing - testing against an alternate hypothesis - tests concerning means - tests concerning differences between means	pp. 419-452
9	8	Linear Regression & Correlation - method of least squares, scatter diagrams, coefficient of correlation, standard error - Minitab applications	pp. 467-525

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