

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: STATISTICS

Code No.: MTH 255-4

Program: FORESTRY, GEOLOGY, PULP & PAPER, WATER RESOURCES

Semester: THREE OR FOUR

Date: JUNE 1987

Author: J. MCGAULEY

New:

Revision:

X

APPROVED:


Chairperson

/U';-?7/f7
Date

CALENDAR DESCRIPTION

STATISTICS

MTH 255-4-FT/GT/WRT/PPE

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", 3rd Edition, Newmark (Saunders Publishing)

MTH255-4-FORESTRY/GEOLOGY/WATER RESOURCES/PULP AND PAPER

TOPIC	PERIODS	TOPIC DESCRIPTION	REFERENCE
1	1	<u>Introduction</u> - definition, development and scope of statistics	pp. 3-18
2	5	<u>Descriptive Statistics</u> - quantative and qualitative data - discrete and continuous variables - frequency tables, histograms, frequency polygon, cumulative frequency polygon	pp. 21-62
3	8	<u>Measures of Location & Variation</u> - summation notations - means and weighted mean - median, mode - range, variance mean deviation - standard deviation	pp. 65-108
4	8	<u>Probability</u> - meaning and types of probability - probability computations - permutations - combinations dependent and independent events - (Omit Bayes Theorem)	pp. 112-196
5	12	<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. 214-304

MTH255-4-STATISTICS FOR FORESTRY/GEOLOGY/WATER RESOURCES/PULP & PAPER

TOPIC	PERIODS	TOPIC DESCRIPTION	REFERENCE
6	5	<u>Sampling</u> - sampling methods, Central Limit Theorem - Minitab application(s)	pp. 309-334
7	8	<u>Estimation</u> - interval estimate of means and proportions, sample size - Minitab application^)	pp. 341-372
8	8	<u>Linear Regression & Correlation</u> - method of least squares, scatter diagrams, coefficient of correlation, standard error - Minitab applications	pp. 422-462