SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE* MARIE, ONTARIO

COURSE OUTLINE

Course Title! __	HYDROLOGICAL FIELD WORK
Code No.!	HYD 100-5
Program?	WATER RESOURCES ENGINEERING TECHNOLOGY
Semester*	I
Date?	SEPTEMBER TO DECEMBER 1984
Author!	JOHN K. THEIL

New J _____ Revision X

APPROVED t_____

Chairperson Date

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Hydrological Field Work — HYD 100-5

Course Name — Course Number

EblLDSOEHYZGOALSJ

This course deals with compass and map utilization* the hydrologic cycle? the occurence of ground water and hydrometric measurements*

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Field work and assignments	30%
Mid term examination	25%
Final exam i n a t i on	45%

Grading

A	80 - 100%
B	70 - 79%
C	60 - 69%
D	50 - 59%

A passing grade will be based on a minimum grading of 60%. Students obtaining a grading of 55 to 59% may be allowed to complete a supplementary examination»

lEXIBQQISlSl!

- Erie Slaaneis Ueaiher Book*
  by E. Sloane*
  Hawthorne Books* A division of Elsevier-Dutton* New York

- Laboratory baoual Eon E'lummejcZMeGearyls E'busical Geology*
  By J»H» Zurmberge and R»H» Ruttford
  Urn* C* Brown Company publishers* Dubugue* Iowa.

REEEEEUCESt

- Hydrology and Quality o£ Uater Resources
  by M•J• Hammer and K.A. MacKichan
  John Wiley 8 Sons

HYDRGLOGICAL FIELD WORK

HYD 100-5

QBJECIiyES:

The student will be able tot

1• Conduct reconnaisance and traverse surveys? make computations? plot traverses? interpret topographic mapping* and compute watershed area

2. Describe the hydrologic cycle.

3. Determine measurements of precipitation? stream flow and evaporation

4* Understand the occurence and transmission of ground water.

The following is the course outline

CQUBSE OUILIUEJ

1. Compass and m3P utilization

   1.1 Familiarization with the instruments (compass? level)
   1.2 Declination? bearing? azimuth
   1.3 Methods of field traversing
   1.4 Computations
   1.5 Exercises in plotting traverse
   1.6 Topographic ITI3PS
   1.7 Delineation of watersheds

   Introduction to hydrology

   2.1 Introduction to water resources engineering
   2.2 Hydrologic cycle
   2.3 Occurrence of groundwater
   2.4 Aauatic formations

3. Hydrometric measurements

   3.1 Precipitation measurements
   3.2 Flow-rate measurements
   3.3 Evaporation measurements