

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

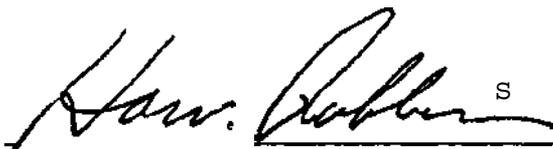
SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: MICROBIOLOGY OF WASTEWATERS  
Code No.: WTR 325--4  
Program: WATER RESOURCES ENGINEERING TECHNOLOGY  
Semester: VI  
Date: JANUARY - APRIL 1984  
Author: JOHN K. THEIL

New: X Revision:

APPROVED;

  
CRairperson

Date

CALENDAR DESCRIPTION

MICROBIOLOGY OF WASTEWATERS

Course Name

WTR 325-4

Course Number

PHILOSOPHY/GOALS:

To acquaint students with the fundamental microbiology and the bio-chemistry of microorganisms of importance with respect to water quality assessment and wastewater treatment requirements.

METHOD OF ASSESSMENT (GRADING METHOD):

Laboratory Work/Assignments	40%	Grading
Mid-Term Examination	20%	A 80 - 100%
Final Examination	40%	B 70 - 79%
		C 60 - 69%

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

TEXTBOOK(S);

Microbiology for Sanitary Engineers, by R. McKinney, McGraw-Hill Publishing Company.

REFERENCE TEXT:

Microbiology, by M.J. Pelczar, Jr., R.D. Reid and E.C.S. Chan, McGraw-Hill Book Company

OBJECTIVES:

The student will be able to:

1. Identify microorganisms of importance in water quality and wastewater treatment applications.
2. Determine the basic requirements and procedures for microscopic observations of microorganisms.
3. Prepare and examine microscopically hanging drop and temporary wet mount specimens.

OBJECTIVES:

4. Recognize the significance of size differences and shapes of bacteria.
5. Carry out staining procedures.
6. Prepare agar and broth media.
7. Perform sterilization and pH adjustment.
8. Perform media inoculation.
9. Perform the plate-count and membrane filtration techniques.
10. Isolate individual bacteria cultures by streak plate separation.