SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

# COURSE OUTLINE

Course Title: INDUSTRIAL EFFLUENT TREATMENT

Code No.: WTR 311 - 5

Program: WATER RESOURCES ENGINEERING TECHNOLOGY

Semester: FIVE

Date: SEPTEMBER - DECEMBER 1983

Author: JOHN K. THEIL

New: X Revision:

APPROVED: 

-Chairperson Date

CALENDAR DESCRIPTION

| INDUSTRIAL EFFLUENT TREATMENT | WIR 311-5 |
|---|---|
| Course Name | Course Number |

**PHILOSOPHY/GOALS:**

To present basic knowledge and practices," theories, and applications relevant to the origin and characteristics, and methods of control and treatment of industrial wastes. The objectives of the course are given on the attached.

METHOD OF ASSESSMENT {GRADING METHOD):

| | |
|---|---|
| Assignments | 35% |
| Mid-term examination | 25% |
| Final examination | 40% |

Grading

A - *m-lOQ%*
B - 70-79%
C - 60-69%
D - 50-59%

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

**TEXTBOOKCS)**

Industrial Water Pollotlon: Origin, Characteristics and Treatment
by Nelson L. Nemerow.
Addison - Wesley Publishing Company

## OBJECTIVES

The student will be able to:

1. Perform calculations related to deoxygenation of streams
2. Calculate dissolved oxygen levels using the Streeter-Phelps formulations, as modified.
3. List and describe the major contaminants originating from industrial waste.
4. Describe the effects of each of the major contaminants on a watercourse and/or a sewage treatment plant.
5. Identify the major differences in characteristics between well-known municipal sewage effluents and industrial waste.
6. Describe the major classifications of industrial wastes.
7. Identify water conservation and waste segregation practices by industrial plants.
8. Describe the application and performance of unit industrial waste treatment practices.
9. List and describe the origin and characteristics and treatment methods for wastes from Industrial processes, including textile, food processing, pulp and paper, steel mill, metal plating and chemical industries.