

SAULT COLLEGE
of Applied Arts and Technology
Sault Ste. Marie

COURSE OUTLINE

MUNICIPAL WASTEWATER TREATMENT

WRT 220-5

Taught to Water Resources 4

r G V i S B U January^ 1983 by S. Verma

MUNICIPAL WASTEWATER TREATMENT

WRT 220

TEXT: Hammer, Mark J., 1977, Water & Wastewater Technology (SI version), John Wiley & Sons, Toronto

REFERENCES:

1. Fair, Gordon Maskew, John C. Gey^r, 1971, Elements of Water Supply and Wastewater Disposal, John Wiley & Sons.
2. Clark, John W., Warren Viessman and M. J. Hammer, 1977, Water Supply and Pollution Control, 3rd Edition, Harper & Row Publishers, N.Y.

EVALUATION:

Problem Assignments	10%
Field/Lab Reports	20%
Mid-term Examination	25%
Final Examination	45%

1. Students scoring more than 59% will be awarded a pass mark.
2. Students with accumulated score in the range of 50-59%, will be considered for supplemental examination.

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COURSE DESCRIPTION:

Wastewater flows and characteristics, domestic wastewater, wastewater collection systems, wastewater processing and operations of wastewater systems.

1. Wastewater flows and characteristics
 - a) Domestic and industrial wastewater
 - b) Infiltration and inflow
 - c) Evaluation of wastewater
2. Wastewater Collection Systems
 - a) Storm and Sanitary Sewers system
 - b) Sewer pipes and jointing and installation
 - c) Estimation of flows and pumping installation
3. Wastewater Processing
 - a) Treatment plant design criteria
 - b) Preliminary treatment
 - c) Sedimentation
 - d) Biological filtration and aeration
 - e) Stabilization ponds
 - f) Waste sludges
 - g) Thickening operations of sludges
 - h) Land disposal
4. Operation of Wastewater Systems
 - a) Sewer maintenance and cleaning
 - b) Infiltration and Inflow surveys
 - c) Regulation of sewer use
 - d) Performance Evaluation of Treatment Plants