

WP

SULT COLLEGE
of APPLIED ARTS and TECHNOLOGY
Sault Ste. Marie

COURSE OUTLINE

ENVIRONMENTAL MEASUREMENTS

~~BIO~~ 307-4

FOR

revised June, 1976

V. Walker

STUDENT EVALUATION
ENVIRONMENTAL MEASUREMENT

307-4

TERM TESTS

A total of 3 term tests will be written on laboratory theory and lecture material.

Term tests will be worth 50% of the final course mark.

LABORATORY REPORTS

Each student is required to write up a full report for each laboratory period in the course. This will include:

1. purpose
2. methods (short)
3. results (must be properly summarized in a table with sample calculations only)
4. discussion, (including a discussion on sources of error)
5. conclusions.

Generally students will work in small groups but each will take the results and do his own reading of background material in order to properly complete the discussion and conclusions of his report. He is expected to locate in texts (from reference list or others) material pertinent to the laboratory he has completed. He will use this material to discuss the importance of performing the laboratory analysis and in his conclusions will relate his particular results to those expected as a result of his reading.

All results are to be reported in metric (S.I.) units.

Each report is due two weeks after the laboratory session and will usually be returned to the student the following lecture.

Late reports will be deducted one grade per day.

Reports receiving an 'I' grade are to be resubmitted within a 2 week period for re-evaluation. Reports receiving an 'I' will be graded at 50% of their total value, if satisfactory.

Lab reports will be worth 50% of the final course mark.

A pass mark for the course is 60%. Students receiving a final grade of less than 60% are required to write a final exam on the total semester's material.

Attendance for labs is compulsory. Students missing labs are required to conduct the experimentation on their own time if the lab is to be graded.

In the event that a lab cannot be completed at a later date (due to unavailability of materials), the student will submit the report for a maximum grade of 50% of the report's total value.

ANY STUDENT MISSING A TOTAL OF 2 LABS WITHOUT DOCUMENTED REASON, WILL RECEIVE AN 'R' GRADE FOR THE COURSE.

BIO 307-4

Topic No.	Periods		Topic Description	Reference
	Lecture	Lab		
1	5	15	<ul style="list-style-type: none"> - Physical properties of water - Annual cycles in temperate lakes - Dissolved gases in waters - Bacteriological requirements for recreational activity - Sampling and dilution techniques - Determination of oxygen, carbon dioxide, ammonia and phosphate in water - Determination of primary productivity - Bioassay techniques - Winter water analysis 	
2	8	0	<ul style="list-style-type: none"> - Meteorology - cloud types - Pressure, winds - Temperature - stability - Fronts, precipitation - Thunderstorms 	
3	5	15	<ul style="list-style-type: none"> - Physical characteristics of soils - Determination of soil pH and organic matter - Calcium and magnesium determination by chemical and atomic absorption methods - Determination of magnesium, iron and phosphorus 	