

Revised
Aug '86

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: AQUATIC SURVEYS

Code No.: FOR 328-4

Program: FISH & WILDLIFE/WATER RESOURCES

Semester: V III

Date: AUGUST 1984

Author: V. WALKER

New: _____ Revision: X

APPROVED:  Chairperson _____ Date _____

CALENDAR DESCRIPTION

AQUATIC SURVEYS

FOR 328-4

Course Name

Course Number

PHILOSOPHY/GOALS:

A field course designed to provide a practical evaluation of physical, chemical and biological parameters of lake and stream ecosystems.

METHOD OF ASSESSMENT (GRADING METHOD):

| | | |
|--|------------------|----------------|
| | 90% ⁺ | A ⁺ |
| | 89 - 89% | A |
| | 70 - 79% | B |
| | 60 - 69% | C |
| | less than 60% | I |

TEXTBOOK(S):

1. Dodge, D.P. et al, 19---. Manual of Instructions, Aquatic Habitat Inventory Surveys. Fish Br., Ont. Min. of Nat. Res. pp. 159.
- * 2. Scott, W.B. and E.J. Crossman, 1973. Freshwater Fishes of Canada. Fish. Res. Bd. Can., Bull. 184:966.
- * Optional for Water Resources

AQUATIC SURVEYS

Laboratory Outline

- Lab 1 - Introduction to course
 - Aquatic Surveys Gear
 - Purpose of Aquatic Surveys
- 2 - Fish Anatomy - QUIZ
 - Field Notes/Field Exercise Review
 - Fish Handling, Vital Statistics
 - Video
- 3 - Anderson Bay Survey
- 4
- 5
- 6
- 7 - Free Lab for Physical Features
 Map/Minnow Forms etc.
 - Countour Map QUIZ
- 8 - Stream Survey
- 9
- 10 - Free Lab for Stream Survey completion
 - Invert Categorization
 - TERM TEST #1
- 11 - Game Fish ID*, Toxicants, Tags, Sampling Gear
 - QUIZ
- 12 - Aquatic Plant & Invert ID (slide presentation)
 - QUIZ
- 13 - Zooplankton
- 14 - Creel census design, Video
- 15 - TERM TEST #2

* Water Resources Only

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AQUATIC SURVEYS

STUDENT EVALUATION

A. Term Tests

A total of two term tests will be written based on practical field work, laboratory exercises and/or guest lecturer material.

Term Test #1 will have a total value of 25 marks. Term Test #2 has a value of 30 marks.

Student must have an average mark of 60% for both term tests. Those students receiving less will be required to write a make-up test during a rewrite period.

B. Quizzes

Several quizzes will be written during the laboratory sessions. A pass mark is 60% for each quiz, however 100% of Ontario's game fish must be correctly identified.

* Water Resources Only

C. Assignments

An aquatic invertebrate collection is required by each student for a value of 10 marks. Lake and stream survey forms, maps and field notes will be submitted at specified times for a total value of 45 marks (see summary of student evaluation and deadlines).

D. Discretionary

A total of 10 marks will be allotted at the instructor's discretion. Students will be evaluated on the basis of attitude, attendance, general participation and interest.

A pass mark for the course is 60%. Attendance during field trips and labs is MANDATORY. Students missing these without documented reason will risk repeating the course.

FOR 328-4

AQUATIC SURVEYS

SUMMARY OF STUDENT EVALUATION & DEADLINES

| | <u>VALUE</u> | <u>DEADLINE/DATE</u> |
|--|-----------------------|--|
| Equipment Quiz | 5 | prior to field exercises |
| Fish Anatomy Quiz | 5 | prior to field exercises |
| Aquatic Collection | 10 | week of Oct. 8 |
| Lake Contour Map and Data Collection Sheet | 15 | *2 wks. after transects are run in the field |
| Contour Map Test | 5 | week of Oct. 15 |
| Remaining Lake Survey Forms/Maps | 15 | week of Oct. 15 |
| Field Notes | 5 | week of Oct. 15 |
| Term Test #1 | 25 | week of Oct. 29 |
| Stream Survey Forms/Maps | 10 | week of Oct. 29 |
| Game Fish ID | 10* | week of Nov. 12 |
| Aquatic Plants & Inverts Quiz | 20 | week of Nov. 19 |
| Term Test #2 | 30 | week of Dec. 10 |
| Discretionary | 10 | |
| | <hr/> | |
| total | 165 (Fish & Wildlife) | 175 (Water Resources) |

NOTE: Deadline dates subject to change

Late Assignments:

Ten percent (10%) will be deducted from the total value of the assignment for every day late.

TEXTS

Dodge, D.P. et al 19--. Manual of Instructions, Aquation Habitat Inventory Habitat Inventory Surveys. Fish. Br., Ont. Min. of Nat. Res. pp. 159

*Scott, W.B. and E.J. Crossman. 1973. Freshwater Fishes of Canada. Fish. Res. Bd. Can., Bull. 184:966

* optional for Water Resources

| | | |
|-----------------------------------|-----------------------|--|
| Week of Oct. 2 | 10 | Aquatic Collection |
| * 2 weeks after transfer to field | 15 | Lake Contour Map and Data Collection Sheet |
| Week of Oct. 15 | 5 | Contour Map Test |
| Week of Oct. 22 | 15 | Remaining Lake Survey Forms/Maps |
| Week of Oct. 29 | 5 | Field Notes |
| Week of Nov. 5 | 25 | Form Test #1 |
| Week of Nov. 12 | 10 | Screen Survey Forms/Maps |
| Week of Nov. 19 | 10* | Game Fish ID |
| Week of Nov. 26 | 20 | Aquatic Plants & Inverts Quiz |
| Week of Dec. 3 | 30 | Form Test #2 |
| | 10 | Disciplinary |
| | 165 (Fish & Wildlife) | Total |
| | 175 (Water Resources) | |

NOTE: Deadline dates subject to change

Late Assignments:

Ten percent (10%) will be deducted from the total value of the assignment (EX EVERY DAY LATE)