

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ONTARIO**



Sault College

**COURSE OUTLINE**

**COURSE TITLE:** FISHERIES MANAGEMENT

**CODE NO. :** NRT 236 **SEMESTER:** 4

**PROGRAM:** FISH & WILDLIFE TECHNICIAN

**AUTHOR:** VALERIE WALKER

**DATE:** JAN 2004 **PREVIOUS OUTLINE DATED:** JAN 2003

**APPROVED:**

	_____	_____
	DEAN	DATE
<b>TOTAL CREDITS:</b>	2	
<b>PREREQUISITE(S):</b>	NONE	
<b>HOURS/WEEK:</b>	2	

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*For additional information, please contact Colin, Kirkwood, Dean*  
*School of Technology, Skilled Trades & Natural Resources*  
*(705) 759-2554, Ext. 688*

**I. COURSE DESCRIPTION:**

This course concentrates on management strategies for important sports and commercial species of fishes of the Great Lakes Region. Emphasis will be placed on harvest control, habitat manipulation and fish stocking as management tools. Collection of aging structures, their preparation and interpretation will be performed. In addition, various software fisheries data will be analysed and interpreted using appropriate software.

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**

Upon successful completion of this course, the student will demonstrate the ability to:

**1. Outline the history and importance of Ontario's fisheries resource**

Potential Elements of the Performance:

- summarize the commercial fishing industry in the Great Lakes since the early 1900's
- discuss the economic value of the commercial fishery, past and present
- detail the importance of recreational fishing to residences of Ontario

*This learning outcome will constitute approximately 10% of the course*

**2. Discuss the factors threatening Ontario's fisheries resource**

Potential Elements of the Performance:

- list and describe the factors resulting in declining aquatic ecosystem health
- outline issues regarding the loss of fish habitat
- detail the history of fisheries exploitation in the Great lakes
- describe the various shareholders in the fisheries resource and their conflicts
- list the various exotic species which have invaded the Great lakes and their impact on indigenous fish stocks

*This learning outcome will constitute approximately 15% of the course.*

**3. Outline the various strategies for the management of Ontario's fisheries**

Potential Elements of the Performance:

- state the goals and strategic management actions to resolve Ontario's important fisheries management issues (SPOF II)
- outline and discuss the three (3) general approaches to fisheries management
- list and briefly discuss five methods of fisheries habitat enhancement
- argue the pro's and con's of fish stocking as a management tool
- list the factors affecting natality, mortality and stability
- discuss the indicators of over exploitation
- list and explain various management prescriptions to reduce the harvest of a given fishery
- outline the quota system for the management for the commercial fishery in the Great Lakes

*This learning outcome will constitute approximately 40% of the course.*

**4. Describe various methods used in Ontario to assess the status of a fish population**

Potential Elements of the Performance:

- discuss the various methods of estimating fish populations
- describe Ontario's three provincial index netting standards (Spring Littoral Index Netting, Fall Walleye Index Netting and Nearshore Community Index Netting) to assess relative abundance
- use appropriate software to interpret various fisheries data
- outline techniques for the assessment of fish growth and fish age
- discuss the role of fisheries as a reflection of the health of the environment

*This learning outcome will constitute approximately 35% of the course.*

**III. TOPICS:**

1. The Importance of Ontario's fisheries
2. Factors threatening Ontario's fisheries
3. Fisheries Management
4. Fisheries Assessment

**IV. REQUIRED RESOURCES/TEXTS/MATERIALS:**

Fisheries Biology & Management (NRT 236) Study Guide,  
Sault College of Applied Arts & Technology, Sault Ste. Marie.

Ontario Ministry of Natural Resources. 2002. Guidelines for stocking fish in  
inland waters of Ontario. Fisheries Section, Fish and Wildlife Branch.  
Peterborough, Ontario. 44 p.

Ontario Ministry of Natural Resources. 1992. Strategic Plan for Ontario  
Fisheries. Fisheries Branch. Toronto, Ontario. 22 p.

**V. EVALUATION PROCESS/GRADING SYSTEM:**

<b>Unit Tests</b>	<b>40%</b>
<b>Assignments/Labs</b>	<b>45%</b>
<b>Presentation</b>	<b><u>15%</u></b>
	<b>100%</b>

Lab assignments and report values will be reduced at a rate of 10% per  
day for late submissions for a period of 5 days after the due date. After 5  
days lab assignment/report value will be zero.

All labs and assignments must be submitted regardless of lateness to pass  
the course. Labs and/or tests missed without documented health or  
personal reasons will be valued at zero.

The following semester grades will be assigned to students:

<b>Grade</b>	<b><u>Definition</u></b>	<i>Grade Point Equivalent</i>
A+	90 – 100%	4.00
A	80 – 89%	3.00
B	70 - 79%	2.00
C	60 - 69%	1.00
D	50 – 59%	0.00
F (Fail)	49% and below	
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field /clinical placement or non-graded subject area.	
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.	
X	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.	
NR	Grade not reported to Registrar's office.	
W	Student has withdrawn from the course without academic penalty.	

**VI. SPECIAL NOTES:**

Special Needs:

If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Special Needs office. Visit Room E1101 or call Extension 493 so that support services can be arranged for you.

Retention of Course Outlines:

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Rights and Responsibilities*. Students who engage in “academic dishonesty” will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Course Outline Amendments:

The professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

**VII. PRIOR LEARNING ASSESSMENT:**

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

**VIII. DIRECT CREDIT TRANSFERS:**

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.