

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY
SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

COURSE TITLE: FOREST PROTECTION

CODE NO.: FOR103-4 SEMESTER: ONE

PROGRAM: FORESTRY TECHNICIAN

AUTHOR: STAN FISCHER

DATE: DECEMBER 1991 PREVIOUS OUTLINE DATED: AUG. 1989

APPROVED:  

DEAN DATE

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COURSE NAME

COURSE NUMBER

TOTAL CREDIT HOURS: 64

PREREQUISITE(S): None

I. PHILOSOPHY/GOALS:

This course introduces first year Forestry students to the basic fire fighter level training (Ministry of Natural Resources S100 level) so students can function as a fire crew member with MNR. Additional practical work around aircraft may be advisable.

II. STUDENT PERFORMANCE OBJECTIVES:

Upon successful completion of this course the student will:

1. Understand basic fire behaviour.
2. Be able to use and maintain handtools and pumping equipment.
3. Be able to work safely around aircraft.
4. Be familiar with camp equipment.

III. TOPICS TO BE COVERED:

1. Safety around Chain Saw Operation
2. Cooking, Lighting and Heating Devices
3. Power Pumps
4. Working With Hoses
5. Handtools
6. Back Pack Pump
7. Water Application
8. Assisting Fire Line Construction
9. Hand Held Radio Operation
10. Mop Up
11. Fireline Patrol
12. Hand Held Burnout Operation
13. Personal Safety On The Fireline
14. Aircraft Safety
15. Helicopter Safety
16. Fire Behaviour
17. Fire weather Index
18. Simulated fire problems

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III. TOPICS TO BE COVERED: (cont'd)

TENTATIVE SCHEDULE

<u>WEEK</u>	<u>TOPIC</u>
1	Introduction of fire behaviour and handtools
2	Fire Pumps
3	Fire line hose and accessories
4	Fire camps set up and equipment
5 & 6	Special schedule including fire camp
7	Test #1 - Chainsaw Maintenance
8	Communications, Fire Weather Index
9	Mop up and Patrol
10	Fix wing aircraft
11	Helicopters - Test #2
12	Assisting in fire line construction (bulldozers)
13	Simulated Fire Problems, personal safety
14	Simulated Fire Problems, burn out
15	Guest Lecture - Test #3

COURSE NAMECOURSE NUMBER**IV. LEARNING ACTIVITIES:**

After approximately 5 weeks of lecture and lab work at school, each class spends 2 1/2 days in a fire camp (tents) setting practicing with pumps, hoses and handtools, stressing safety.

The student will learn to operate and maintain equipment.

The student will learn to compute Fire Weather Index (FWI) indices.

LEARNING OBJECTIVES		CONDITION	ACCURACY
(ACCORDING TO UNIT CREW TRAINING STANDARDS - MINISTRY OF NATURAL RESOURCES)			
Troubleshoot and correct problems	(1.05)	Lab	Acceptable
Match personnel, equipment and materials given a specific set of field conditions	(2.01)	Lab Problem Field Exercise	Acceptable
Demonstrate safe use of fire tools and equipment (axe, shovel, etc.) (with adequate job experience)	(2.02)	Field	Acceptable
Identify work hazards & describe corrective action	(2.02)	Lab/Field	Acceptable
Select a site on a map, draw a camp plan, erect camp...activate daily roster	(3.02)	Lab/Field	Acceptable
Sharpen axes, chainsaws, shovels, pulaski	(3.03)	Lab/Field	Acceptable

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IV. LEARNING ACTIVITIES: (cont'd)

LEARNING OBJECTIVES		CONDITION	ACCURACY
Describe machine-site compatibility bulldozer and fire plan (4.02)		Lab	
Describe initial access route to a fire given forest types and topography (5.02)		Lab Problem	Acceptable
Select appropriate tools, describe and demonstrate use, maintain, retrieve (6.03)		Given Set of Lab/Field	60% Acceptable
- hose			
- shovel			
- back-pack pumps			
- pulaski, etc.			
List factors that lead to selection of specific fire control equipment (6.03)			60%
Identify and describe situations: boarding, loading, docking, signalling aircraft; flammable fuels; lifting heavy objects (6.03)		Lab/Field (Checklist)	60% Acceptable
Describe procedures for deployment of men & equipment (6.03)		Lab	60%
Describe factors which affect fire behaviour individually & in combination (6.03)		Lab	60%
- slope, weather, wind, topography, fuel, fire type, etc.			

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IV. LEARNING ACTIVITIES: (cont'd)

LEARNING OBJECTIVES		CONDITION	ACCURACY
Operate a permanent Weather Station or Set up a Temporary Weather Station			
Select a base campsite on a map	(6.03)	Given set of conditions	Acceptable
Describe organization of base camp, e.g., location of helipad, radio antennae, dock	(6.03)	Given Campsite	Acceptable
Describe construction and installation of VHF antennae	(6.03)		
Construct a dock suitable for boat or aircraft	(6.03)		

V. EVALUATION METHODS:

Fire Camp -	25%	
Test 1	20%	
Test 2	15%	
Test 3	30%	
Performance	<u>10%</u>	Performance is based on attendance
	100%	

Start with 10 points at beginning of course -

miss lab - 1
 late lab - 1
 late lect. - 2
 participation up to + 3

Pass 60%; B = 70; A = 80; A+ = 90

You must pass fire camp and test #1 to stay in this course.

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VI. REQUIRED STUDENT RESOURCES:

- FOR103 Forest Protection Study Guide
- FWI Tables
- 2 1/4 pound by 28" axe

VII. SPECIAL NOTES:

Students with special needs (e.g. physical limitations, visual impairments, hearing impairments, learning disabilities) are encouraged to discuss required accommodations confidentially with the instructor.

Your instructor reserves the right to modify the course as he/she deems necessary to meet the needs of students.

V. EVALUATION METHODS:	
Fire Camp -	25%
Test 1	20%
Test 2	15%
Test 3	15%
Performance	10%
	100%
Performance is based on attendance	
Start with 10 points at beginning of course -	
miss lab	-1
late lab	-1
late lect	-1
participation up to +3	
Pass 80%: B = 70%; A = 80%; A+ = 90%	
You must pass fire camp and test #1 to stay in this course.	