

**SAULT COLLEGE**  
**SAULT STE. MARIE, ONTARIO**



**COURSE OUTLINE**

**COURSE TITLE:** Forest Fire Management

**CODE NO. :** NRT-103 **SEMESTER:** 1 Fall Camp  
3 Course

**PROGRAM:** Forest Conservation Technician

**AUTHOR:** Dave Bronson/Carole Hunter/John Clement

**DATE:** August 2015 **PREVIOUS OUTLINE DATED:** August 2015

**APPROVED:** "Colin Kirkwood" August 2016

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*Dean of Environment/Design/Business* **DATE**

**TOTAL CREDITS:** 3

**PREREQUISITE(S):** NONE

**HOURS/WEEK:** 3

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## **I. COURSE DESCRIPTION:**

This course will follow the Ontario Ministry of Natural Resources and Forestry (OMNR&F) SP-100 Firefighter training. Students will gain theoretical and practical knowledge of basic forest fire suppression techniques and methods used in Ontario today. Students will also get theoretical knowledge of fire suppression activities at the national level of certification.

Theoretical lessons will include; fire suppression basics, health, safety and wellness, team work, human factors on the fire line, introduction to the Incident Command System (ICS), fire behaviour, hand tools (back pack pump c/w trombones/ axes/ Pulaski's and shovels), fuel handling safety, the MKIII power pump, hose handling and retrieval, application of water, heavy equipment basics, fire line patrol and mop-up, bush orientation, handheld radio use, aircraft operations (Rotary wing and Fixed wing), camp operations and equipment management.

Students will gain hands on experience with forest fire suppression equipment and ensure it is retrieved to OMNR&F standards. In addition the student will demonstrate proficiency in the operation of power pumps, power pump troubleshooting, hose lays, application of water, hand tool line construction, helicopter slinging, safety, teamwork, preparedness, camping, cooking, heating, lighting using propane devices in a practical environment.

Students who attain a mark of 75% or better in this course and achieve 100% attendance at the field exercises will receive SP-100 certification from the college approved under agreement by the OMNR&F, which is applicable to all employers in Ontario with fire management related responsibilities.

Students who attain a mark of 70% on the national written exam will be eligible for certification nationally. The final written exam is a combination of National and Ontario testing.

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

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

1. Safely operate and retrieve forest fire suppression equipment to the OMNR&F SP100 standard.

### Potential Elements of the Performance:

- Follow equipment inventory control procedures
- Safely operate, maintain and retrieve forest fire equipment (pumps, hose, hand tools, camp equipment, Radios etc.)
- Safely participate in a practical helicopter slinging exercise

- Sharpen and maintain an axe, Pulaski and fire shovel
- Roll hose into a melon based on SP100 standards
- Successfully demonstrate bush orientation skills

*This learning outcome will constitute approximately 60 % of the course's grade*

2. Describe and demonstrate fire use and fire suppression tactics and strategies.

Potential Elements of the Performance:

- Explain and demonstrate fire line tactics (direct and indirect attack, hose lays, pump set ups, troubleshooting, etc.)
- Explain the application and limitations of the fire equipment in various fire management scenarios
- Describe the role of aircraft and heavy equipment in fire management
- Understand the components of the Incident Command System (ICS) used on the fire
- Explain fire management operations including preparedness, initial and sustained attack, mop up and retrieval.
- Demonstrate safe and efficient work habits in a teamwork environment
- Understand the importance of safety gear, hard hat, steel toe boots, gloves, goggles/ safety glasses, hearing protection.

*This learning outcome will constitute approximately 40 % of the course's grade*

### **III. TOPICS:**

1. Fire Equipment operation and field maintenance (pumps and hose , hand tools, camp equipment and Radios).
2. Fire line tactics (direct, indirect attack, hose lays, pump set-ups, fire line organization). Safe work habits, and use of safety equipment.
3. The use of rotary/fixed wing aircraft and heavy equipment in fire management.
4. Fire operational procedures (preparedness to suppression through to retrieval)
5. Inventory management practices in the Ontario Fire Management program
6. Bush orientation skills using a sighted compass

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

OMNR&F SP-100 Training Manual  
 Other readings (provided by instructor)

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

Camp, Radio and Hand tool Operations - 10%  
 Fall Camp (equipment operation, safety, team work, etc.) – 10 %\*  
 Application of Water - 10%  
 Pump Setups, hand tools 10%  
 Helicopter Slings - 10%  
 Bush Orientation - 10%  
 To achieve SP 100 certification in Ontario 100% attendance is required at all field trips listed above.

Ontario Certification Final Test – 40%  
 National Certification Final Test - 100%

**“VERY IMPORTANT”**

The following semester grades will be assigned to students:

<u>Grade</u>	<u>Definition</u>	<u>Grade Point Equivalent</u>
A+	90 - 100%	4.00
A	80 - 89%	4.00
B	70 - 79%	3.00
C	60 - 69%	2.00
D	50 - 59%	1.00
F (Fail)	49% and below	0.00
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:**

Attendance:

Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session. To receive MNR certification attendance is mandatory at all field labs.

**VII. COURSE OUTLINE ADDENDUM:**

The provisions contained in the addendum located on the portal form part of this course outline