

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ONTARIO**



**SAULT  
COLLEGE**

**COURSE OUTLINE**

<b>COURSE TITLE:</b>	<b>Forest Fire Management</b>		
<b>CODE NO. :</b>	<b>NRT-103</b>	<b>SEMESTER:</b>	<b>1 Fall Camp 3 Course</b>
<b>PROGRAM:</b>	<b>Forest Conservation Technician</b>		
<b>AUTHOR:</b>	<b>Dave Bronson/John Clement</b>		
<b>DATE: August 2012</b>	<b>PREVIOUS OUTLINE DATED:</b>	<b>June 2011</b>	
<b>APPROVED:</b>	<b>"Brian Punch"</b>	<b>August 2012</b>	
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	<b>CHAIR</b>	<b>DATE</b>	
<b>TOTAL CREDITS:</b>	<b>3</b>		
<b>PREREQUISITE(S):</b>	<b>NONE</b>		
<b>HOURS/WEEK:</b>	<b>3</b>		

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**For additional information, please contact Brian Punch,  
Chair of Environment/Design/Business  
School of Environment, Technology and Business  
(705) 759-2554, Ext. 2681**

## **I. COURSE DESCRIPTION:**

This course will follow the Ontario Ministry of Natural Resources (OMNR) SP-100 Firefighter training standards. Students will gain theoretical and practical knowledge of basic forest fire suppression techniques and methods used in Ontario today.

Students will gain hands on experience with forest fire suppression equipment and ensure it is retrieved to OMNR standards. This will include: fire suppression basics, Health and 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.

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 in tents, cooking, heating, lighting using propane and naphtha in a practical environment.

Students who attain a mark of 75% or better in this course will receive SP-100 certification from the college approved by the OMNR, which is applicable to all employers in Ontario with fire management related responsibilities.

## **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 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, etc.)
- Explain the application and limitations of this equipment in various fire management scenarios
- Sharpen and maintain an axe
- Roll hose into an melon based on SP100 standards

*This learning outcome will constitute approximately 50 % 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.)
- 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*

3. Recognize the role of fire in forested and other ecosystems

Potential Elements of the Performance:

- Describe basic concepts of fire ecology and fire dependant ecosystems
- Discuss fire management issues including; fire exclusion, fire use (prescribed burning), the emulation of natural disturbances (forest management) and associated implications for ecosystem health.

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

**III. TOPICS:**

1. Fire Equipment operation and field maintenance (pumps and hose , hand tools, camp equipment, etc).
2. Fire line tactics (direct, indirect attack, hose lays, pump set-ups, fire line organization). Safe work habits, and use of safety equipment. The use of rotary/fixed wing aircraft and heavy equipment in fire management.
3. Fire operational procedures (preparedness through to suppression through to retrieval)
4. Fire management concepts including fire exclusion, fire uses, (prescribed burning), the emulation of natural disturbances (forest management) and associated implications for ecosystem health.

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

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

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

Fall Camp (equipment operation, safety, team work, etc.) – 25 %\*  
 Application of Water - 15%  
 Pump Setups, hand tools 15%  
 Helicopter Slings - 15%  
 Midterm test - 10%  
 Final Test – 20%

\* In the event of a modified fall camp, this grade may be made up of in lab assignments...

**“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.

**VII. COURSE OUTLINE ADDENDUM:**

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