### SAULT STE. MARIE, ONTARIO



### COURSE OUTLINE

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COURSE TITLE:	1 <sup>ST</sup> Year Field Camp – Summer		
CODE NO. :	NRT131	SEMESTER:	1
PROGRAMS:	Adventure Recreation and Parks		
AUTHOR:	Valerie Walker/Modified by Carole Hunter		
DATE:	June 2012	PREVIOUS OUTLINE DATED:	Sept 2010
APPROVED:			June 2012
		CHAIR	DATE
TOTAL CREDITS:	4		
PREREQUISITE(S):	None		
LENGTH OF COURSE:	30 hours		
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#### I. COURSE DESCRIPTION:

Field Camp introduces a variety of field skills essential to natural resource technicians. The course consists of approximately 30 hours of activities that will be staggered around regular scheduled classes. Students will be exposed to a bush camp experience where they will be prepared to safely work for an extended time period. Students will pitch their own tents, gather firewood and participate in duties related to a bush camp operation.

In addition, there are a series of 6 field exercises that all students will participate in. Navigating with compass and/or satellite imagery maps are practiced as are pacing and chaining through wilderness areas. Instruments used in forest measurements will be demonstrated and students will conduct a survey of a forested area. Students will be introduced to the use and safe operation of fire fighting equipment such as fire pumps, hose and back pack pumps. In addition, students will conduct a stream assessment by investigating chemical, physical and biological parameters. There will be evening sessions relating to tree and shrub identification, fire building, outdoor cooking, proper bush camp hygiene, bear safety and environmental etiquette. In order to earn credit, students are required to participate in all activities in a safe and satisfactory manner.

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

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

# 1. Use a magnetic hand compass and navigate to within 5% accuracy of the destination.

Potential Elements of the Performance:

- identify the parts of a compass
- understand and set magnetic declination on a compass
- be able to use flagging tape in order to travel in a straight line

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2. Pace to within 5% accuracy and measure distances using a 50 m rope to within 0.5% accuracy.

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Potential Elements of the Performance:

- determine pacing factor and be able to pace distances
- understand the measurement divisions for a 50 m rope
- be able to maintain and properly store equipment
- 3. Use satellite imagery as well as a topographical map to travel from one location to another using a magnetic hand compass and GPS.

Potential Elements of the Performance:

- understand scales of photographs and maps
- identify major topographical and cover type features on maps and imagery
- be able to measure distances and directions on maps and imagery
- ability to use a GPS to find waypoints and navigate

# 4. Identify 6 native coniferous trees from foliage or cone characteristics

#### Potential Elements of the Performance:

- collect cones and foliage from 6 coniferous trees
- name the species collected, using approved botanical names

# 5. Safely use fire fighting equipment including fire pumps, back pack pumps and fire hose.

- demonstrate safe use and operation of water pumps and hose used in forest fire fighting
- correctly roll fire hose
- become proficient in the use of a soft backpack pump

#### 6. Conduct a field survey to assess stream habitat

- accurately assess chemical and physical parameters of a stream including dissolved oxygen, pH, alkalinity, carbon dioxide, total dissolved solids and turbidity
- use proper techniques to collect and examine aquatic invertebrates
- complete field forms neatly and accurately

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#### 7. Conduct a forest inventory survey

- complete a dot tally and record legible field notes
- measure and record tree diameters using callipers and diameter tapes
- measure tree heights using clinometers
- measure the age of trees with an increment borer and count growth rings

#### 8. Collect terrestrial insects for identification purposes

• Set up pit traps and night traps in order to collect and preserve insects for future identification

#### 9.

#### Safely live and work in a bush camp

- properly set up a 2-man tent
- demonstrate proper use of sleeping bags and sleeping pads
- store food, set up and operate a bush camp to minimize the potential for bear-human conflict
- use proper hygiene in the bush
- safely collect and burn firewood
- maintain a positive outlook and be respectful towards others
- demonstrate the importance of safety, attitude and teamwork when working and living in the bush
- demonstrate a respectful attitude towards the environment

#### III TOPICS:

- 1. Navigation with GPS and compass for accuracy
- 2. Chaining, pacing and traversing through the forest
- 3. Identification and botanical names of coniferous tree species
- 4. Safe use of fire equipment
- 5. Stream survey
- 6. Forest inventory survey
- 7. Collection and preservation of terrestrial insects
- 8. Importance of safety and attitude in the bush

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

- 1. Farrar, J.L. 1995. **Trees in Canada.** Fitzhenry & Whiteside. Markham, Ontario. 502 pp.
- 2. Hard hat, safety boots, reflective vest.

A list of additional supplies, equipment, maps and field forms will be available as handouts to participants

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

The grade received will be based on attendance and participation. **MANDATORY** attendance and participation is required for all field activities for a satisfactory (S) grade.

The following semester grades will be assigned to students:

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has withdrawn from the vithout academic penalty.

#### VI. SPECIAL NOTES:

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#### COURSE NAME <u>Attendance:</u>

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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.

#### <u>Safety</u>

Students are expected to follow all safety-related rules and procedures at all times. Safety equipment such as safety boots, hard hats and reflective vests must be worn on all exercises. Students must not be in possession of alcohol, drugs or firearms. Students must not participate in any exercise or activity that they believe to be unsafe.

#### VII. COURSE OUTLINE ADDENDUM:

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

\*Due to compressed course some activities may be altered.\*