



**COURSE DESCRIPTION:**

This 3-day course is a review and enhancement of field skills obtained in previous courses taken throughout the year. Students will be evaluated on a number of important exercises which are vital for obtaining a career in natural resources. Course topics will include: safety procedures and maintenance of select equipment, field identification of trees, shrubs and herbaceous plants, field identification of wildlife by either sight or sign, and field orientation, mapping, and aerial photography.

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

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

**1. Carry out basic maintenance of select equipment and follow appropriate safety procedures.**

Potential Elements of the Performance:

- Conduct a circle check of a vehicle
- Conduct a circle check of a 4-wheel ATV
- Conduct a circle check of a snowmobile
- Remove and replace a tire
- Securely tie down a boat onto a trailer and hitch a trailer to a vehicle
- Tie a bowline and a double half hitch knot
- Safely drive a selected course with a 4-wheel ATV
- Safely load a 4-wheel ATV onto a half-ton truck
- Repair a chainsaw rewind chord
- Check for proper spark in a chainsaw
- Calculate fuel mixes
- Change cotter pin and spark plug on an outboard motor

**2. Identify the winter condition, tree and shrub species commonly encountered in the Mark's Bay Conservation Area.**

Potential Elements of the Performance:

For a particular tree or shrub:

- Assess features including foliage, buds, twigs, bark, silhouette, and ecological associations
- Determine which features are best applied to the identification task at hand
- Apply knowledge of and experience with key features to correctly identify the tree or shrub
- Neatly record both common and Latin names on a standardized field note sheet

**3. Identify the dwarf woody or herbaceous plants most commonly encountered In the Mark's Bay Conservation Area.**

Potential Elements of the Performance:

- Assess features such as flower colour, flower structure, size, configuration of leaves and overall appearance
- Determine which features are best applied to the identification task at hand
- Apply knowledge of and experience with key features to correctly identify the plant
- Neatly record common names and Latin names on a standardized field note sheet

**4. Locate and identify wildlife signs encountered along a compass traverse.**

Potential Elements of the Performance:

- Carefully search for wildlife signs while running a compass traverse line
- For each wildlife sign found use field guides, personal knowledge and deductive reasoning to identify the wildlife species
- Neatly and concisely record details of wildlife signs on a standardized field note sheet

- 5. In a densely forested area, as part of a team of three students, compass and chain along three different azimuths, a total distance of approximately 800 meters. Arrive 60 meters of a mathematically calculated endpoint.**

Potential Elements of the Performance:

Part A - Compassing

- Set appropriate declination on compass
- Set appropriate azimuth on compass
- Hold compass correctly
- Use compass to locate a landmark on the line of travel
- Travel to the landmark
- Repeat the process until a specified destination is reached

Part B - Chaining

- Work as part of a team to measure distances while travelling through a densely forested area
- As lead chainperson, stretch chain straight along compass line, in spite of brush and other obstacles
- As lead chainperson, mark chain lengths effectively
- Communicate effectively with other team members
- Accurately keep track of number of chain lengths traveled

- 6. As part of a team of three or four students, conduct a deer browse survey in a winter deer yarding area.**

Potential Elements of the Performance:

- Use compassing and chaining skills to locate a sampling plot center
- Following written instructions, classify habitat within the sampling area
- Following written instructions, establish five square sample plots in a geometric pattern
- Classify woody stems as to degree of browsing
- Following written instructions, collect twigs for calorimetric analysis

- 7. Be able to use OMNR aerial photographs and an OBM map in order to travel from one location to another using a magnetic hand compass.**

Potential Elements of the Performance:

- Understand scales of photographs and maps
- Identify major features on a topographic map and cover type changes on aerial photographs
- Be able to measure distances and directions on a map and an aerial photograph using a magnetic hand compass

- 8. Be able to view aerial photographs in three dimensions.**

Potential Elements of the Performance:

- Correctly orient a stereopair of aerial photographs for stereoviewing
- Correctly handle and take care on OMNR aerial photographs
- Identify tree species, topographical features and drainage patterns on an aerial photograph

- 9. Correctly use mapping signs and symbols in the process of preparing field notes.**

Potential Elements of the Performance:

- Record field information legibly on tally sheets using proper symbols
- Be able to acquire field notes through observation

**III. TOPICS:**

1. Day #1 - Equipment Maintenance and Safety (Sault College)
2. Day #2 - Resource Identification (Mark's Bay Conservation Area)
3. Day #3 - Field Orientation, Mapping and Aerial Photography (Sault College and north of Sault Ste. Marie)

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

Stereoscopes (*absolutely necessary*)  
Clipboard  
Pencil(s)  
Compass (set decl. to 9 degrees west)  
1:50 000 NTS map #41K/9  
Hardhat  
Watch  
Calculator  
Snowshoes (snow dependant)  
Personal safety whistle (Fox 40)  
Lunch and a water bottle (plenty of fluids)  
Day pack to carry all of your equipment  
Knowledge of your pacing factor (write it in your calculator)  
Appropriate dress for the day (rain suit, warm clothes, etc)  
Steel-toed boots  
Field guide(s)

**EVALUATION PROCESS/GRADING SYSTEM:**

Evaluation will be based on the completion of a handout given to each student. The handout will involve answering questions or completing tasks that are made along the route throughout the day. Students must obtain a grade of 60% or greater on the handout questions or tasks in order to obtain a S (Satisfactory) grade in this course.

**A PASS GRADE OF 60% MUST BE OBTAINED IN ALL COMPONENTS TO PASS THIS COURSE.**

Possible grades for this course are as follows:

S - Satisfactory	(60%+)
R - Repeat the exercises	(<60%)

**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 instructor and/or the Special Needs office. Visit Room E1204 or call Extension 493, 717, or 491 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.

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.