
Course Name

Code No.**I. COURSE DESCRIPTION:**

Students will carry out practical exercises and perfect outdoor skills as they relate to a forest technician. Exercises are drawn from the Trees & Shrubs, Field Orientation, Forest Management and Planning, Soils Analysis, Silviculture 1 & 2, Forest Mensuration, Harvesting, and Tree Marking courses. Students will investigate red pine thinning trials, plant trees and assess planter performance, prepare for the white pine tree marking certification course. The use of ATV's will be demonstrated and practiced by each student. In addition, students will visit various research sites dealing with jack pine productivity.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Navigate accurately and quickly through a forested landscape using mechanical and electronic navigation aids.

Potential Elements of the Performance:

- Properly use a magnetic hand compass with declination set
- Properly use a GPS unit to locate field positions, mark locations and enter field coordinates

2. Compare the effects of thinning a plantation at various spacing factors.

Potential Elements of the Performance:

- Measure tree numbers, heights and diameters.
- Establish plots of a designated size and calculate # of trees/ha and volume of trees/ha

3. Complete a description of a soil pit.

Potential Elements of the Performance:

- Establish a soil pit to the proper depth and dimension.
- Complete an analysis of soil horizons, both organic and mineral.
- Perform measurements and a texture test on all mineral horizons.
- Take a bulk density sample of the mineral soil.
- Establish the presence of free carbonates in the soil profile.
- Complete tally sheets satisfactorily and collect a soil sample from each of the soil horizons.

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- Identify the color of each mineral soil horizon using the Munsell color charts.
4. Operate an All Terrain Vehicle in a safe efficient manner in an operational forest setting.

Potential Elements of the Performance:

- Describe all the major mechanical features of the ATV machine
 - Demonstrate knowledge of all the operational features of the ATV
 - List and demonstrate the use of all ATV safety equipment
 - Demonstrate the safe operation of the ATV in the forest
5. Carry out operational silvicultural activities.

Potential Elements of the Performance:

- Plant forest tree seedlings according to specified standards.
 - Assess tree planting according to a specified format.
 - Calculate payment of a tree plant operation.
 - Accurately mark white pine trees for removal and understand the underlying principles when selecting trees to be harvested.
 - Identify defects and wildlife values in tolerant hardwood stands.
 - Be familiar with the various methods of site preparation and the impacts of future forest crops.
 - Develop an understanding of Yellow Birch crop tree release based on previous strip cutting methods on Crown Land
6. Be able to follow instructions and work as part of a cooperative, productive team in the forest.

Potential Elements of the Performance:

- Demonstrate ability to organize and complete work in an efficient and timely manner.
- Demonstrate the ability to work as part of a team.
- Conduct all work in a manner that respects the safety of other crew members.
- Wear all safety equipment (hardhat, safety boots) as required.
- Recognize potential hazards while working in the forest and the steps that can be taken to minimize risks to crew members

III. TOPICS:

1. Assessing a red pine thinning trial
2. Tree planting
3. Tolerant hardwood defects and wildlife values
4. White pine tree marking
5. ATV operation
6. Describing soils by establishing soil pits
7. Tour of jack pine productivity study (scarification alternatives) and Thessalon First Nation Nursery
8. Tree planting assessment
9. Birch Crop Tree Release
10. Tree measurements

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IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

- Fall Camp 2nd Yr Forestry NRT 252 course manual
- Ontario Tree Marking Guide text
- Compass
- Pocket Stereoscopes
- Clipboard
- Pencils/pen/paper
- Calculator
- Hardhat
- Safety boots (2 pair recommended – rubber and leather)
- Rain gear, small day pack
- Sleeping bag, pillow
- Extra clothing and personal items
- Pocket knife, flashlight, canteen (water bottle)
- Wrist watch
- Cup or coffee mug
- Prescription medicine if required

V. EVALUATION PROCESS/GRADING SYSTEM:

The following semester grades will be assigned to students:

Grade	<u>Definition</u>	<i>Grade Point Equivalent</i>
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	

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NR	requirements for a course.
W	Grade not reported to Registrar's office. Student has withdrawn from the course without academic penalty.

Students must satisfactorily complete **ALL** of the following activities; white pine tree marking exercise and test, tree planting, participate in the soils pit description, harvesting audit, Thessalon First Nation Nursery tour and GPS contest in order to obtain a satisfactory (S) grade in this course.

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.

Other:

According to official policy “students are NOT permitted to drive other students to travel destinations”. Student vehicles are not permitted at field camp.

VII. COURSE OUTLINE ADDENDUM:

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