

SAULT COLLEGE

SAULT STE. MARIE, ONTARIO



**SAULT
COLLEGE**

COURSE OUTLINE

COURSE TITLE:	Tree Marking and Scaling		
CODE NO. :	NRT 203	SEMESTER:	3
PROGRAM:	FOREST CONSERVATION		
AUTHOR:	Laurie Thompson		
DATE:	July 2016	PREVIOUS OUTLINE DATED:	Aug. 2015
APPROVED:	"C.Kirkwood"		July 2016
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	Dean	<hr/>	DATE
TOTAL CREDITS:	3		
PREREQUISITE(S):	None		
HOURS/WEEK:	3		

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*For additional information, please contact Colin Kirkwood, Dean
Environment and Design
(705) 759-2554, Ext. 2688*

I. COURSE DESCRIPTION:

Tree Marking and Scaling is designed to introduce students to the basic concepts of tree marking and wood measurement. It will prepare students to meet provincial standards for operational tree marking in Ontario. Students taking this course may be eligible to be tested for provincial tree marking certification through a cooperative arrangement with the Ontario Ministry of Natural Resources and Forestry (OMNRF). The wood measurement portion of this course will be according to the OMNRF Provincial Scaling Manual and will serve to introduce students to scaling concepts. Interested students may complete the Provincial scaler's licence immediately upon graduation through Algonquin college in Pembroke. The Provincial tree marking certification course and the scaling licence are not a part of this course and must be completed separately by interested students on their own at their own expense. The natural environment resource department may assist in providing opportunities for students to be certified and licensed by the OMNRF.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

- 1 Understand and apply the silvicultural and management principles and guidelines for tolerant hardwood stands in Ontario

Potential Elements of the Performance

- List the silvical characteristics of tolerant hardwood species in Central Ontario
- Understand and identify timber and non timber values found in tolerant hardwood stands
- List the key objectives of and components of the tolerant hardwood tree marking program in Ontario
- Properly identify key information sources available to assist tree markers in tolerant hardwoods
- Identify, describe and compare key silvicultural systems used to manage hardwood stands

This will constitute 20% of the courses grade

- 2 Mark trees in tolerant hardwood stands according to provincial standards

Potential Elements of the Performance:

- Identify tree defects
- Identify stick nests, cavity trees and a wide range of other wildlife habitat values in tolerant hardwood stands
- Classify hardwood trees as AGS or UGS
- Use a prism to make basal area determinations
- Mark trees according to a silvicultural prescription and provincial requirements.

This will constitute 20% of the courses grade

- 3 Understand and apply the silvicultural and management principles and guidelines for managing the white pine working group in Ontario

Potential Elements of the Performance:

- List the silvical characteristics of conifer species found in the white pine working group in Ontario
- Understand and identify the timber and non timber values found in the white pine working group
- List the key objectives of and components of the white pine tree marking program in Ontario
- Properly identify key information sources available to assist tree markers for the white pine working group.
- Identify, describe and compare key silvicultural systems used to manage the white pine working group

This will constitute 20% of the courses grade

- 4 Mark trees in white pine stands according to and provincial standard

Potential Elements of the Performance:

- Identify tree defects
- identify stick nests, cavity trees and other wildlife habitat values
- Classify trees as AGS or UGS
- Using regeneration cut, uniform shelterwood specifications select crop trees, space and mark trees using % spacing factor and crown spacing as a guide.
- Mark trees according to silvicultural prescriptions and provincial standards.

This will constitute 20% of the courses grade

5. Measure wood according to the Crown Forest Sustainability Act and the provincial Scaling Manual

Potential Elements of the Performance

- Describe and understand the basic methods and principles of wood measurement in Ontario for the Ministry of Natural Resources.
- Perform basic wood measurements in the Cubic Method and Cube Grade Method of scaling as per the Ministry's Scaling Manual.

This will constitute 20% of the courses grade

III. TOPICS

1. Ecology, silviculture and management of tolerant hardwood stands
2. Ecology, silviculture and management of white pine stands
3. AGS, UGS and defect classification
4. Tree marking for wildlife and habitat values
5. Marking hardwood stands field trips
6. Marking white pine stands field trips
7. Wood measurement principles and methods
8. Commercial tree species log identification

IV. RESOURCES/TEXTS AVAILABLE ONLINE

1. Provincial Tree Marking Guide 2004 OMNR VERSION 1.1
2. Forest Raptors, Their Nests in Central Ontario
3. Forest Management Guide to Silviculture in the Great Lakes-St. Lawrence and Boreal Forests of Ontario
4. A Silvicultural Guide to Managing Southern Ontario Forests
5. Scaling manual

V. EVALUATION PROCESS/GRADING SYSTEM:

1. hardwood tree marking practical
2. pine tree marking practical
3. tree marking written test
4. tree defect quiz
5. tree defect test
6. scaling & log identification test

100%

<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% or below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field /clinical placement or non-graded subject areas.	
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 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.

It is the departmental policy that once the classroom door has been closed, the learning process has begun. Late arrivers may not be granted admission to the room.

VII. COURSE OUTLINE ADDENDUM:

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