

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ONTARIO**



**SAULT  
COLLEGE**

**COURSE OUTLINE**

**COURSE TITLE:** TIMBER CRUISING  
**CODE NO. :** NRT 106 **SEMESTER:** 2  
**PROGRAM:** FOREST CONSERVATION TECHNICIAN  
**AUTHOR:** Robert Routledge (modified after B. Currell)  
**DATE:** Dec.10 **PREVIOUS OUTLINE DATED:** Jan. 10

**APPROVED:**

“B. Punch”

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**CHAIR**

\_\_\_\_\_  
**DATE**

**TOTAL CREDITS:** 3

**PREREQUISITE(S):**

**HOURS/WEEK:** 3

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*For additional information, please contact Brian Punch, Chair,  
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**COURSE DESCRIPTION:**

- I. Effective forest management and harvest planning is based on accurate field inventories of the composition of the forest. This course examines methods of obtaining such information, through hands-on training. Various cruising methodologies including fixed area plot measurement and point sampling will be carried out in the field. Compilation of forest inventory data will be taught.

**NRT 119 Forest Mensuration is normally a prerequisite.**

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

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

1. Carry out accurate inventories of forest trees (45%)

Potential Elements of the Performance:

- Explain the concepts of timber cruising, forest inventories and growth and yield.
- Carry out prism, fixed area and strip cruises complete with the associated compilations
- Understand how to design a timber inventory

2. Properly compile, summarize and report inventory results (20%)

Potential Elements of the Performance:

- Compile complete, legible cruise tallies
- Summarize results using appropriate calculations

3. Demonstrate the ability to use Electronic Data Recorders in forestry applications (10%)

Potential Elements of the Performance:

- Record data using Personal Data Assistants (PDAs)

4. Calculate the number of trees per hectare, basal area per hectare and timber volume per hectare (15%)

Potential Elements of the Performance:

- Understand the concepts of stems per hectare, basal area per hectare and tree volume per hectare.
  - Apply mathematical formulae to calculate trees per hectare, basal area per hectare and volume per hectare
5. Carry out Forest Resource Inventory (FRI) data collection (10%)

Potential Elements of the Performance:

- Lay out an FRI ground plot on maps and aerial photos
- Locate and establish an FRI ground plot using maps and aerial photos

### **III. TOPICS:**

1. Tree height and diameter review; measurement of tree growth and age
2. Types of timber sampling techniques (strip cruising, fixed area plots, point sampling)
3. Timber cruise compilations
4. Laying out a forest inventory
5. Electronic data recorders
6. Forest resource inventory ground plots

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

- NRT126 Forest Measurements Study Guide
- Suunto MC-1 compass or equivalent
- Calculator

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

- Tests (2) 30%
- Field exercises and compilations 50%
- Homework assignments 20%

NOTE: Up to 20% may be deducted (5% per instance) for documented mishandling or failure to return equipment

NOTE: All assignments must be submitted at the start of class on the due date. There will be a 10% per day penalty for late assignments. Late assignments will not be accepted after that assignment has been marked and returned to the class.

NOTE: Attendance and active participation in each lab is mandatory in order to receive a grade for that lab unless there are exceptional circumstances.

The following semester grades will be assigned to students in postsecondary courses:

<b>Grade</b>	<b><u>Definition</u></b>	<b>Grade Point Equivalent</b>
A+	90 – 100%	4.00
A	80 – 89%	3.00
B	70 - 79%	2.00
C	60 - 69%	1.00
D	50 – 59%	0.00
F (Fail)	49% and below	
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:

### Course Outline Amendments:

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.

### 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.

### Prior Learning Assessment:

Students who wish to apply for advance credit transfer (advanced standing) should obtain an Application for Advance Credit from the program coordinator (or the course coordinator regarding a general education transfer request) or academic assistant. Students will be required to provide an unofficial transcript and course outline related to the course in question. Please refer to the Student Academic Calendar of Events for the deadline date by which application must be made for advance standing.

Credit for prior learning will also be given upon successful completion of a challenge exam or portfolio.

Substitute course information is available in the Registrar's office.

### Disability Services:

If you are a student with a disability (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Disability Services office. Visit Room E1101 or call Extension 2703 so that support services can be arranged for you.

### Communication:

The College considers **WebCT/LMS** as the primary channel of communication for each course. Regularly checking this software platform is critical as it will keep you directly connected with faculty and current course information. Success in this course may be directly related to your willingness to take advantage of the **Learning Management System** communication tool.

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Code of Conduct*. A professor/instructor may assign a sanction as defined below, or make recommendations to the Academic Chair for disposition of the matter. The professor/instructor may (i) issue a verbal reprimand, (ii) make an assignment of a lower grade with explanation, (iii) require additional academic assignments and issue a lower grade upon completion to the maximum grade “C”, (iv) make an automatic assignment of a failing grade, (v) recommend to the Chair dismissal from the course with the assignment of a failing grade. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Student Portal:

The Sault College portal allows you to view all your student information in one place. **mysaultcollege** gives you personalized access to online resources seven days a week from your home or school computer. Single log-in access allows you to see your personal and financial information, timetable, grades, records of achievement, unofficial transcript, and outstanding obligations. Announcements, news, the academic calendar of events, class cancellations, your learning management system (LMS), and much more are also accessible through the student portal. Go to <https://my.saultcollege.ca>.

Electronic Devices in the Classroom:

Students who wish to use electronic devices in the classroom will seek permission of the faculty member before proceeding to record instruction. With the exception of issues related to accommodations of disability, the decision to approve or refuse the request is the responsibility of the faculty member. Recorded classroom instruction will be used only for personal use and will not be used for any other purpose. Recorded classroom instruction will be destroyed at the end of the course. To ensure this, the student is required to return all copies of recorded material to the faculty member by the last day of class in the semester. Where the use of an electronic device has been approved, the student agrees that materials recorded are for his/her use only, are not for distribution, and are the sole property of the College.

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

Tuition Default:

Students who have defaulted on the payment of tuition (tuition has not been paid in full, payments were not deferred or payment plan not honoured) as of the first week of *<choose November, March, or June>* will be removed from placement and clinical activities. This may result in loss of mandatory hours or incomplete course work. Sault College will not be responsible for incomplete hours or outcomes that are not achieved or any other academic requirement not met as of the result of tuition default. Students are encouraged to communicate with Financial Services with regard to the status of their tuition prior to this deadline to ensure that their financial status does not interfere with academic progress.