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: BOB CURRELL

DATE: JAN. 09 **PREVIOUS OUTLINE DATED:** JAN. 08

APPROVED: "B Punch"

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CHAIR **DATE**

TOTAL CREDITS: 3

PREREQUISITE(S):

HOURS/WEEK: 3

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 pre-requisite.

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

   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

   This learning outcome will make up 45% of the course's grade

2. Properly compile, summarize and report inventory results

   Potential Elements of the Performance

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

   This learning outcome will make up 20% of the course's grade

3. Demonstrate the ability to use Electronic Data Recorders in forestry applications.

   Potential Elements of the Performance:

   - Record data using Personal Data Assistants (PDAs)

   This learning outcome will make up 10% of the course's grade

4. Calculate the number of trees per hectare, basal area per hectare and timber volume per hectare.

   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

   This learning outcome will make up 15% of the course's grade

5. Carry out Forest Resource Inventory (FRI) data collection

   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

   This learning outcome will make up 10% of the course's grade

III. TOPICS:

1. Tree Height and Diameter review, The 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%
- Strip cruise
- Prism cruise
- Fixed area plot cruise
- FRI ground plot

Homework Assignments 20%

- Each cruise report must be completed to a minimum 70% mark or it must be rewritten.
- Up to 20% may be deducted (5% per instance) for documented mishandling or failure to return equipment

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

Grade	Definition	*Grade Point Equivalent*
A+	90 – 100%	4.00
A	80 – 89%	
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 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:

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.

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.

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*. Students who engage in academic dishonesty will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. 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.

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.

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

ATTENDANCE
Attendance and active participation in each field lab is manatory in order to receive a grade for that field lab assignment unless there are exceptional circumstances.

ASSIGNMENTS
All assignments must be submitted by 1:00 pm. On the due date. There will be a 10% per day penalty for late assignments. Late assignments will not be accepted after the marked assignment has been marked and returned to the class.

VII. 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.

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