SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



CICE COURSE OUTLINE

COURSE TITLE: Trees and Herbaceous Plants Identification

CODE NO.: NRT133 SEMESTER: Winter

MODIFIED CODE: NRT0133

PROGRAM: Adventure Recreation and Parks Technician

Fish and Wildlife Technician Forest Conservation Technician

Natural Environment Technician/Technologist

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MODIFIED BY: Katie Wakeley, Learning Specialist CICE Program

DATE: Jan 2017 **PREVIOUS OUTLINE DATED:** 2016

APPROVED: "Martha Irwin" Jan 2017

CHAIR DATE

TOTAL CREDITS: Three

PREREQUISITE(S):

HOURS/WEEK: Three

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I. COURSE DESCRIPTION:

CICE students, with assistance from a Learning Specialist, will acquire a basic skill level in regard to winter identification of major tree and shrub species that are representative of the forest regions and urban areas of Ontario. CICE students will also identify dwarf woody plants and herbs commonly found in Ontario woodlands. The silvics of tree species and the ecology of plant associations will be studied to complement the identification of tree, shrub and herbaceous plant species

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Identify broad-leaf trees and shrubs in leaf-off condition.

Potential Elements of the Performance:

- Identify some of the morphological features of a woody twig using appropriate terminology
- identify and describe flowering or fruiting structures using appropriate terminology and relate to taxonomic group
- use some features such as twigs, bark, flowering and fruiting structures, growth form and ecological associations to correctly identify a particular tree or shrub by their common name
- associate common names with scientific names for all deciduous trees and shrubs studied
- identify Ontario's predominate deciduous tree species (11) by their common names
- 2. Associate key identification features with the common names of commercially important western Canadian coniferous trees.

Potential Elements of the Performance:

- recognize some features of commercially important western Canadian coniferous trees
- associate key features with common names
- 3. Identify woody and herbaceous plants using dichotomous word keys (winter leaf-off trees and shrubs; flowering herbaceous and dwarf woody plants).

Potential Elements of the Performance:

- associate some technical terms with their definitions
- evaluate options set forth in a dichotomous word key
- follow most steps in a dichotomous word key
- 4. Identify herbaceous and dwarf woody plants and woody and herbaceous plants considered invasive.

Potential Elements of the Performance:

- use some features including leaf characteristics and flower structure, size, and colour to correctly identify a particular plant
- be able to recognize the ecological and societal impacts of invasive plants

III.

TOPICS:

Note: These topics will not necessarily be explored as isolated learning units, or in the order presented below:

- 1. Woody twig morphology
- 2. Flower morphology
- 3. Woody plant fruit types
- 4. Tree and shrub leaf-off identification with and without the use of a dichotomous key
- 5. Native herbaceous and dwarf woody plant identification using foliage and flowers with and without the use of a dichotomous key
 - 6. Invasive non-aquatic woody and herbaceous plant identification
 - 7. Ecological and societal impacts of invasive plant species
 - 8. Identification features of western Canadian coniferous trees
 - 9. Primary and secondary succession
 - 10. Ecological associations of common trees and shrubs
 - 11. Forest Regions of Ontario and western Canada

IV.

REQUIRED RESOURCES/TEXTS/MATERIALS:

• Barnes, B. V. and Wagner, W. H. Jr. (2004). Michigan Trees, Revised and Updated, University of Michigan Press

NRT0133

- Chambers et al. (1996). Forest Plants of Central Ontario, Lone Pine Publishing
- Newcomb, L. (1989). Newcomb's Wildflower Guide. Little, Brown and Company, Toronto
- 10x power hand lens, clipboard, pencil
- reflective vest, hard hat with appropriate winter liner (there must be clearance between the hard hat shell and wearer's head for suspension system to work properly), snowshoes, appropriate winter clothing, and winter boots

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OPTIONAL RESOURCES/TEXTS/MATERIALS:

- Kershaw, L. J. (2001). Trees of Ontario, Including Tall Shrubs, Lone Pine Publishing
- Newmaster, S. G. (2013). Woodlot Biodiversity, 2nd Edition. Newmaster Publishing Ltd.
- VI. EVALUATION PROCESS/GRADING SYSTEM:
- Identification tests/lab assignments 60%
- Lecture tests/quizzes 20%
- Assignments 20%

Missed Identification Test/Lab Assignment:

Identification Tests will normally occur weekly during lab portion of the courseunless otherwise planned by CICE Learning Specialist

No make-ups will be allowed for field (outdoor) identification tests except under extenuating circumstances.

Missed Lecture Test/Quiz:

Lecture tests/quizzes will be announced at least one week in advance.

For a student to be eligible to complete a missed lecture test/quiz, the instructor must be contacted in person or via email to discuss make-up options prior to a missed class or within 48 hours after the date of the missed lecture test/quiz. Students not contacting the instructor within this time period will get a zero grade on a given assessment for that particular day (except under extenuating circumstances, e.g., doctor's note).

• The following semester grades will be assigned to students:

Grade

Definition

Grade Point Equivalent

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.

Field Labs

Students must wear appropriate clothing and safety equipment when on outdoor scheduled field exercises. A student who comes to an outdoor lab without the requested safety equipment or is wearing inappropriate winter clothing will be marked absent and will not attend the class and this includes writing tests given in the outdoors.

Any student who in the judgement of the instructor or in consultation with support staff behaves inappropriately during a scheduled class or copies the work of another student without the instructor's permission, will be given an automatic zero on that particular assessment and will be subject to all the terms and conditions in the student's rights and responsibilities hand book and may after, reviewing the situation with the instructor, be asked to leave the course with an F grade.

Smoking is not allowed during field labs.

Cell phones

Lecture: Please turn off your cell phone, or set to "vibrate", during lecture (including lecture portion of lab periods).

Lab: Use of a cell phone is not allowed during a field ID test. A student using a cell phone during a field ID test will be given an automatic zero for that test. If students are expecting an important phone call while in the field, the instructor must be informed beforehand.

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.

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.

Communication

The College considers 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.

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.

Addendum:

Further modifications may be required as needed as the semester progresses based on individual student(s) abilities and must be discussed with and agreed upon by the instructor.

VIII. COURSE OUTLINE ADDENDUM:

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

CICE Modifications:

Preparation and Participation

- A Learning Specialist will attend class with the student(s) to assist with inclusion in the class and to take notes.
- 2. Students will receive support in and outside of the classroom (i.e. tutoring, assistance with homework and assignments, preparation for exams, tests and quizzes.)
- 3. Study notes will be geared to test content and style which will match with modified learning outcomes.
- 4. Although the Learning Specialist may not attend all classes with the student(s), support will always be available. When the Learning Specialist does attend classes he/she will remain as inconspicuous as possible.

A. Tests may be modified in the following ways:

- 1. Tests, which require essay answers, may be modified to short answers.
- 2. Short answer questions may be changed to multiple choice or the question may be simplified so the answer will reflect a basic understanding.
- 3. Tests, which use fill in the blank format, may be modified to include a few choices for each question, or a list of choices for all questions. This will allow the student to match or use visual clues.
- 4. Tests in the T/F or multiple choice format may be modified by rewording or clarifying statements into layman's or simplified terms. Multiple choice questions may have a reduced number of choices.

B. Tests will be written in CICE office with assistance from a Learning Specialist.

The Learning Specialist may:

- 1. Read the test question to the student.
- 2. Paraphrase the test question without revealing any key words or definitions.
- 3. Transcribe the student's verbal answer.
- 4. Test length may be reduced and time allowed to complete test may be increased.

C. Assignments may be modified in the following ways:

- Assignments may be modified by reducing the amount of information required while maintaining general concepts.
- 2. Some assignments may be eliminated depending on the number of assignments required in the particular course.

The Learning Specialist may:

- 1. Use a question/answer format instead of essay/research format
- 2. Propose a reduction in the number of references required for an assignment
- 3. Assist with groups to ensure that student comprehends his/her role within the group
- 4. Require an extension on due dates due to the fact that some students may require additional time to process information
- 5. Formally summarize articles and assigned readings to isolate main points for the student
- 6. Use questioning techniques and paraphrasing to assist in student comprehension of an assignment

D. Evaluation:

Is reflective of modified learning outcomes.