

Course Outline

Course Title:	Tree Sciences and Practices		
Course Number:	FSTY60	Approval Date:	2025/1/15
Course Hours:	45 hours	Academic Year:	2024
Academic School:	School of Environmental & Natural Resource Sciences		
Faculty:	Michelle Paskaris - Michelle.Paskaris@flemingcollege.ca Ethan Benson - Ethan.Benson2@flemingcollege.ca Josh Feltham - josh.feltham@flemingcollege.ca Clinton Harper - Clinton.Harper@flemingcollege.ca Tom Mikel - tom.mikel@flemingcollege.ca		
Program Co-ordinator or Equivalent:	Benjamin Walters - Benjamin.Walters@flemingcollege.ca Katrina Van Osch-saxon - katrina.van_osch-saxon@flemingcollege.ca		
Dean (or Chair):	Jennifer Hermer - jennifer.hermer@flemingcollege.ca Lorie Blundon - Lorie.Blundon@flemingcollege.ca		

Course Description

This course introduces students to tree anatomy and physiology. Focusing on the tree as an individual students learn the biological make up of trees to better understand how they respond to injury and stresses. With this foundation students then apply these principles to tree risk assessment, pruning techniques to improve tree health and longevity and to make best management decisions to protect trees growing in urban spaces.

Prerequisites: None.

Corequisites: None.

Experiential Learning: Field Experience, On-Campus Teaching Lab

Course Delivery Type

Online Asynchronous.

All course hours are delivered online asynchronously without specified meeting times. Delivery locations and times are not specified on the academic timetable. Asynchronous course hours may be completed at any time.

Learning Outcomes

Upon successful completion of this course, students will be able to:

1. Explain tree sciences as they apply to tree growth and response to injury at a cellular level.
2. Identify typical structure and form of urban trees and the challenges they face to manage risk and provide preventative maintenance according to industry standards.
3. Apply tree sciences to assess health, structure and form of urban trees in order to determine potential risk at an introductory level.
4. Demonstrate common urban forestry practices to improve tree health and structure according to industry standards.

Learning Resources

ISA Certified Arborist Study Guide is highly recommended to supplement learning in this course.

Some additional assignment material will be available on reserve in the library:

Dirr, Michael A. 1998. Manual of Woody Landscape Plants, 5th ed. Champaign: Stipes

Shigo, Dr.Alex L. Tree Basics. Durham:Shigo and Trees, Associates.

Costs for learning resources can be found on the Campus Store website, using the links below, or by visiting the Campus Store location at your campus.

- Sutherland: <https://www.bkstr.com/sfleming-sutherlandstore/home>
- Frost: <https://www.bkstr.com/sfleming-froststore/home>

Assessment Summary

Assessment Task	Percentage
In-class activities	22%
Assignments	38%
Tests	40%

Student Success: Policies and Procedures

Mutually, faculty and learners will support and adhere to college Academic Regulations, and Student Rights and Responsibilities. The following policies and guidelines have been developed to support the learning process.

Please click on the link for information about:

- [Academic Integrity \(2-201A\)](https://department.flemingcollege.ca/hr/attachment/7750/download)
(<https://department.flemingcollege.ca/hr/attachment/7750/download>)

- [Accessibility for Persons with Disabilities \(3-341\)](https://department.flemingcollege.ca/hr/attachment/5619/download)
(<https://department.flemingcollege.ca/hr/attachment/5619/download>)
- [Grading and Academic Standing \(2-201C\)](https://department.flemingcollege.ca/hr/attachment/7752/download)
(<https://department.flemingcollege.ca/hr/attachment/7752/download>)
- [Guidelines for Professional Practice: Students and Faculty](https://flemingcollege.ca/PDF/guidelines-for-professional-practice-students-faculty.pdf)
(<https://flemingcollege.ca/PDF/guidelines-for-professional-practice-students-faculty.pdf>)
- [Student Rights and Responsibilities \(5-506\)](https://department.flemingcollege.ca/hr/attachment/269/download)
(<https://department.flemingcollege.ca/hr/attachment/269/download>)

If you will need academic accommodations (for example if you have a learning disability, mental health condition such as anxiety or depression or if you had an IEP in high school), please contact the [Accessible Education Services \(AES\)](https://department.flemingcollege.ca/aes/) department (<https://department.flemingcollege.ca/aes/>) to meet with a counsellor.

Alternate accessible formats of learning resources and materials will be provided, on request.

Program Standards

The **Ministry of Colleges and Universities** oversees the development and the review of standards for programs of instruction. The **Ministry of Labour Training and Skills Development** oversees the development and the review of standards for programs of instruction for Apprenticeship training in the province of Ontario. Each college is required to ensure that its programs and program delivery are consistent with these standards, and must assist students to achieve these essential outcomes.

This course contributes to Program Standards as defined by the [Ministry of Colleges and Universities](#) (MCU). Program standards apply to all similar programs of instruction offered by colleges across the province. Each program standard for a postsecondary program includes the following elements:

- **Vocational standards** (the vocationally specific learning outcomes which apply to the program of instruction in question);
- **Essential employability skills** (the essential employability skills learning outcomes which apply to all programs of instruction); and
- **General education requirement** (the requirement for general education in postsecondary programs of instruction that contribute to the development of citizens who are conscious of the diversity, complexity and richness of the human experience; and, the society in which they live and work).

Collectively, these elements outline the essential skills and knowledge that a student must reliably demonstrate in order to graduate from the program. For further information on the standards for your program, follow the MCU link (www.tcu.gov.on.ca/pepg/audiences/colleges/progstan/).

Detail Plan

Term: 2025 Winter

Session EMA
Code:

Faculty: Michelle Paskaris - Michelle.Paskaris@flemingcollege.ca

Program Co-ordinator or Katrina Van Osch-saxon - katrina.van_osch-saxon@flemingcollege.ca
Equivalent:

Dean (or Chair): Jennifer Hermer - jennifer.hermer@flemingcollege.ca

Lorie Blundon - Lorie.Blundon@flemingcollege.ca

Learning Plan

Wks/Hrs Units	Topics, Resources, Learning, Activities	Learning Outcomes	Assessment
Week 1	Tree Characteristics and ID	1, 2	
Week 2	Tree Inventory	4	Tree Characteristics and ID Assessment 10%
Week 3	Day with Wayne Twine	1	Tree Inventory Assignment 15%
Week 4	Wood Biology	1	Day with Wayne Twine Reflection 10%
Week 5	Tree Pruning	1, 2, 4	Wood Biology Assessment 10%
Week 6	Tree Protection	1, 2, 4	Tree Pruning Assessment 10%
Week 7	Tree Architecture	2, 3, 4	Tree Protection Assessment 5%
Week 8	Tree Risk Assessment	2, 3	Tree Architecture Assessment 5%
Week 9	Final Exam	1, 2, 3, 4	Tree Risk Assessment Assignment 15% Final Exam, completed upon return 20%

Assessment Requirements

Assessment Task	Date/Weeks	Course Learning Outcome	Percentage
Tree Characteristics and ID Assessment	Week 2	1, 2	10%
Inventory Assignment	Week 3	4	15%
Day with Wayne Twine Reflection	Week 4	1	10%
Wood Biology Assessment	Week 5	1	10%
Tree Pruning Assessment	Week 6	1, 2, 4	10%
Tree Protection Assessment	Week 7	1, 2, 4	5%
Tree Architecture Assessment	Week 8	2, 3, 4	5%
Tree Risk Assessment Assignment	Week 9	2, 3	15%
Final Exam	Week 9	1, 2, 3, 4	20%

Late submissions will be marked but will be subject to a penalty of 10% loss per day.

If there are extenuating circumstances, students must contact the faculty prior to the submission date to discuss an extension. Special consideration may be given; however the student should keep in mind that ultimately the decision will be based on what is fair to all students in the course.

In the event of an emergency, the student or a designated party must contact the faculty within 24 hrs.

Documentation of the event may be required for special consideration to be given.

Artificial Intelligence (AI) Statement

NO ASSESSMENTS. Generative AI tools (like ChatGPT) may only be used to assist exploratory learning and cannot directly contribute to any assessment as part of this course.

It is the responsibility of students to maintain a history of records and supporting documentation to demonstrate their efforts in all academic submissions, even if submission of these is not part of the final academic deliverable.

Exemption Contact

Tom Mikel

Prior Learning and Assessment and Recognition (PLAR)

PLAR uses tools to help learners reflect on, identify, articulate, and demonstrate past learning which has been acquired through study, work and other life experiences and which is not recognized through formal transfer of credit mechanisms. PLAR options include authentic assessment activities designed by faculty that may include challenge exams, portfolio presentations, interviews, and written assignments. Learners may also be encouraged and supported to design an individual documentation package that would meet the learning requirements of the course. Any student who wishes to have any prior learning acquired through life and work experience assessed, so as to translate it into a college credit, may initiate the process by applying through the Registrar's office. For more information please click on the following link: <http://flemingcollege.ca/admissions/prior-learning-assessment-and-recognition>

Course Specific Policies and Procedures

It is the responsibility of the student to retain this course outline for future reference. Course outlines may be required to support applications for advanced standing and credit transfer to other educational institutions, portfolio development, PLAR and accreditation with professional associations.

Synchronous sessions may be recorded. As a result, your image, voice, name, personal views and opinions, and course work may be collected under legal authority of section 2 of the Ontario Colleges of Applied Arts and Technology Act, 2002. This information will be used for the purpose of supporting student

learning. Any questions about this collection can be directed to the Privacy and Policy Officer at freedomofinformation@flamingcollege.ca or by mail to 599 Brealey Drive, Peterborough, ON K9J 7B1.

Students must have the following Personal Protective Equipment for specific labs in this course where safety/professionalism requires it:

- Hard Hat
- Safety Glasses
- Leather Gloves
- Steel Toe Boots

Text for this course (available at the bookstore) is strongly recommended:

- *Arborist Certification Study Manual*, ISA

Academic Responsibilities:

It is important to submit assignments and projects at a specified time and location. The faculty member(s) for this course will provide the detail. It should be noted that the School of Environmental and Natural Resource Sciences Office, Student Services, and Admissions & Records will not accept any assignments or projects.

Final grades in this course are assigned based on the level of academic achievement which corresponds to the assessment components as cited in this course outline. It is important to note that faculty member(s) will not offer additional evaluation activities beyond those cited in this course outline.

Use of alcohol or drugs, including cannabis, is strictly prohibited in class both on or off campus. Failure to comply will result in students not participating in class activities in consideration of student safety.

An electronic distribution list will be established in the first few weeks of classes. This list will be used to communicate information to students. It is the responsibility of the student to ensure that your proper Fleming email address is provided to the professor within this time. It is also the responsibility of the student to check Fleming e-mail and/or D2L regularly for course information and announcements.

Any and all communication devices are not to be utilized in the classroom, unless otherwise specified by the faculty. Use of personal technologies during tests will result in a grade of ZERO for the test.

Missed Tests:

It is the student's responsibility to be present for all tests and evaluations. Missed tests will be given a mark of zero.