Flowering Plant Taxonomy
NRMT 2050 / BIOL 2051
Faculty of Natural Resources Management
Winter 2026

Instructor Information

Instructor: Dr. Ashley Thomson, PhD, RPF (she/her)
E-mail: ashley.thomson@lakeheadu.ca
Office Hours: Wednesdays and Fridays from 9:30 to 10:30 am (or by appointment/chance)
Office: BB1011D

Technician: Mrs. Keri Pidgen-Welyki (she/her)
E-mail: kpidgen@lakeheadu.ca
Office: BB1011F

Teaching Assistant: Yuanxin Ye
E-mail: yye15@lakeheadu.ca

Course Description/Overview: This course introduces students to the evolutionary relationships among the flowering plants and the processes that gave rise to their existing taxonomic hierarchy. The systematic identification of Ontario's major flowering plant families is learned in labs. The methods, rules and history of flowering plant taxonomy are presented in lectures.

Learner Outcomes: After successfully completing this course, you should be able to:

1) Demonstrate knowledge of the principles and methods of plant systematics, including description, identification, nomenclature, classification, and phylogenetic inference
2) Recognize and describe the key characteristics of important flowering plant families, including their morphological characteristics, ecology, distribution, and principal uses
3) Understand the principles and rules of plant nomenclature, including how to use plant scientific names correctly, the procedure for naming a new plant taxon, and the reasons that names may be changed

4) Apply taxonomic methodology to effectively identify flowering plant species using dichotomous keys
5) Explain the principles of phylogenetic reconstruction and how understanding of evolutionary relationships is applied to the study of plant systematics

Recommended Course Text: Plant Systematics 3rd edition by Michael G. Simpson. Published by Academic Press (ISBN 9780128126288). Available for purchase at https://shop.elsevier.com/books/plant-systematics/simpson/978-0-12-812628-8. Paperback available for $105.00 CDN and ebook available for $83.99 CDN.

Assignments and Evaluations

Item	Percent of final grade
Midterm Exam	15
Flowering Plant Family Presentation	10
Laboratory Exercises	30
Midterm Lab Test	5
Final Lab Test	15
Final Exam	25

Laboratory Participation and Exercises: Students have a three-hour lab section dedicated to weekly learning objectives and assignments. *Laboratory participation is mandatory, and all lab assignments are due at the end of each lab period.* No late lab submissions will be accepted, except under circumstances agreed upon by the instructor. Students who miss lab due to an unapproved absence will receive a grade of zero for the missed assignment. For an approved absence, arrangements must be made with the Instructors and TA to make up work and/or obtain data and notes from your peers.

Flowering Plant Family Presentation: Each student will sign up to deliver an individual presentation on one flowering plant family included in the course textbook that is not covered in lecture. Families will be selected on a first-come, first-served basis to avoid duplication. Students will prepare a brief 7–10 minute presentation on their selected family, which will be delivered during the designated lecture periods near the end of the term. Additional details, including presentation guidelines and evaluation criteria, will be provided on D2L.

Midterm Exam: The mid-term exam will be held during the regular lecture period on February 25th. All material covered in the lecture to this date will be considered when setting the exam.

Midterm Lab Test: There will be a lab midterm test held during the regular lab period during the week of February 9th.

Final Lab Test: There will be a cumulative lab test at the end of the semester. The test will occur during the regular lab period in the final week of classes (week of April 1st) and will test understanding of plant taxonomy, morphology, and common families.

Final Exam: The final exam will be held during the April examination period. All material covered in the lecture, including assigned readings, will be considered when setting the exam. The final exam is cumulative.

Lecture Schedule (subject to change)

Week	Date	Day	Topic
1	7-Jan-26	Wed	Course Introduction
1	9-Jan-26	Fri	Evolution of Flowering Plants
2	14-Jan-26	Wed	Basal Angiosperms and Magnoliids
2	16-Jan-26	Fri	Monocots I (Non-commelinids)
3	21-Jan-26	Wed	Plant Nomenclature
3	23-Jan-26	Fri	Monocots II (Commelinids)
4	28-Jan-26	Wed	Understanding Phylogenies
4	30-Jan-26	Fri	Basal Eudicots
5	4-Feb-26	Wed	Pollination Ecology
5	6-Feb-26	Fri	Rosids I
6	11-Feb-26	Wed	Plant Reproductive Biology
6	13-Feb-26	Fri	Rosids II
7	18-Feb-26	Wed	Winter Study Week – No Classes
7	20-Feb-26	Fri	Winter Study Week – No Classes
8	25-Feb-26	Wed	Midterm Exam (in class)
8	27-Feb-26	Fri	Rosids III
9	4-Mar-26	Wed	Plant Speciation I
9	6-Mar-26	Fri	Asterids I
10	11-Mar-26	Wed	Plant Speciation II
10	13-Mar-26	Fri	Asterids II
11	18-Mar-26	Wed	Phylogenetic Methods & Inference
11	20-Mar-26	Fri	Asterids III
12	25-Mar-26	Wed	Student Presentations
12	27-Mar-26	Fri	Student Presentations
13	1-Apr-26	Wed	Student Presentations
13	3-Apr-26	Fri	Holiday – No Class

Lab Schedule (subject to change)

Week	Week of	Topic
1	Week of Jan 5	No Lab
2	Week of Jan 12	Introduction to Plant Morphology
3	Week of Jan 19	Non-commelinid Monocots
4	Week of Jan 26	Commelinid Monocots
5	Week of Feb 2	Basal Eudicots
6	Week of Feb 9	**Lab Midterm;** Fabids Part I
7	Week of Feb 16	*Winter Study Week – No Labs*
8	Week of Feb 23	Fabids Part II
9	Week of Mar 2	Malvids
10	Week of Mar 9	Superasterids
11	Week of Mar 16	Lamiids
12	Week of Mar 23	Campanulids
13	Week of Apr 1	**Final Lab Test**

COURSE POLICIES

Use of D2L: Course information and announcements, lecture slides, laboratory information and exercises, and marks will be posted on the D2L system.

Communication and Email: You are encouraged to ask questions in class laboratory sessions, and during office hours. If you have a course conflict with our scheduled office hours, please contact us to set up a time when we can meet. To avoid inadvertent loss through spam- filtering, all e-mails should be from a LakeheadU account and include the course code in the subject heading. I check and respond to emails during my working hours of Monday to Friday, 8:30 am to 4:30 pm. I will not regularly see or respond to emails outside of these hours.

Late Assignments and Missed Course Work

Students may experience short-term illness or other extenuating circumstances that affect their ability to meet course deadlines. In such cases, students may submit a **Self-Declaration Form (SDF)** in accordance with the University's *Missed Academic Term Work Policy*. An approved SDF entitles the student to a reasonable opportunity to complete the missed coursework without academic penalty. Students may use the SDF **up to two times per term**. The SDF cannot be used for the final exam. No medical documentation is required. Students must **contact the instructor prior to the assignment deadline** or scheduled academic activity and submit the Self-Declaration Form at the same time. For full details, students should consult the University's Missed Academic Term Work Policy.

Late assignments **not accompanied by an approved SDF will be penalized 10% per day** (including weekends and holidays), to a maximum of seven days, after which a grade of zero will be assigned.

Academic Integrity & Student Conduct

Students are expected to uphold the highest standards of academic integrity. Plagiarism, cheating, and other forms of academic dishonesty are serious offences and will be dealt with according to University regulations. For policies, definitions, and resources, see Lakehead University's Student Conduct website.

Missed Final Exam

If you are unable to write the final exam due to illness or other serious circumstances, you must apply for a deferred exam through the Registrar's Office. Details and the application process are available here: Final Exam Deferral Policy.

Other University Regulations

Students are responsible for familiarizing themselves with all regulations that apply to their studies. The full list of University policies and procedures can be found here: University Policies.

Support for Students

Information on health, wellness, accessibility, and academic resources is available here: https://www.lakeheadu.ca/campus-life/student-supports

Final Note

This syllabus outlines the expectations and requirements for the course. Students are expected to review it carefully and refer to it throughout the term.