



Flowering Plant Taxonomy  
Faculty of Natural Resources Management  
Winter 2022

### **Instructor Information**

Lecture instructor: Dr. Ashley Thomson  
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Lab instructor: Ryan Wilkie  
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### **Course Identification**

Course number: NRMT 2050 / BIOL 2051  
Lecture room: AT 2001  
Lecture time: Mondays and Wednesday 4:30 – 5:30 pm

### **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. An individual herbarium project is also completed.

### **Course Learning Objectives**

- Define the principles and rules of plant nomenclature
- Describe the various forms of taxonomic evidence used to classify flowering plants
- Recognize and describe the key characteristics of different flowering plant families, including their morphological characteristics, ecology, distribution, and principal uses
- Explain the principles of phylogenetic reconstruction and how understanding of evolutionary relationships is applied to the study of plant systematics
- Discuss how variation in reproductive biology, ecology, and chromosome number have contributed to the diversification of flowering plants
- Use an herbarium and know how to access herbarium databases
- Apply taxonomic methodology to identify unknown plant species

- Prepare botanical illustrations and floral diagrams
- Construct your own plant descriptions using botanical vocabulary

### Topics Covered

- Plant morphology and description
- Plant identification and classification
- Botanical nomenclature
- Evolution of flowering plants
- Diversity of major groups including basal angiosperms, monocotyledons, and dicotyledons
- Plant reproductive biology
- Plant molecular systematics

### Course Resources

Course Website available through myCourseLink

### Required Course Texts

Simpson, Michael G. Plant Systematics (3<sup>rd</sup> ed). Elsevier, Burlington, MA. 761 pp.

### Assignments and Evaluations

Grade Item	Deadline	Value (%)
Quizzes	Weekly on Mondays*	5
Lab Assignments	Weekly on Wednesdays*	50
Midterm Exam	February 28 <sup>th</sup>	10
Herbarium Assignment	March 30 <sup>th</sup>	15
Final Exam	TBA	20
	Total	100

\*Unless otherwise stated

### Final Date to Withdraw

Friday, March 11, 2022

## **Quizzes**

Quizzes will be available on Mondays of each week (unless otherwise stated) on MyCourseLink under the 'quizzes' tab. Normally, quizzes become available at 12:01 am and are no longer available after 11:59 pm. Once the quiz is started, you must complete it in the set amount of time (usually 10 minutes).

## **Lab Assignments**

Lab assignments are due every Wednesday by the end of day (11:59 pm) unless otherwise stated. Assignments must be submitted to the appropriate folder under the 'assignments' tab in MyCourseLink.

## **Herbarium Assignment**

The herbarium assignment must be submitted on D2L before 11:59 PM on March 30<sup>th</sup>. Late assignments will be deducted a rate of 10% per day. Additional information on this assignment will be made available on D2L in the first few weeks of class.

## **Mid-term Exam**

The mid-term exam will be held on Monday, February 28<sup>th</sup>. All material covered in the course to this date will be considered when setting the exam. The exam will be available starting at 12:01 am and will no longer be accessible after 11:59 pm. Once the exam is started, you must complete it in the set amount of time (normally 60 minutes).

## **Final Exam**

A final exam will be held during the April exam period. All material covered in the course will be considered for inclusion in the exam. Further details on the final exam timing and format will be announced after the April exam schedule has been released.

## **Mental Health**

As a university student, you may sometimes experience mental health concerns or stressful events that interfere with your academic performance and negatively impact your daily activities. All of us can benefit from support during times of struggle. If you or anyone you know experiences academic stress, difficult life events or feelings of anxiety or depression, Student Health and Wellness is here to help. Their services are free for Lakehead Students and appointments are available. You can learn more about confidential mental health services available on and off campus at [lakeheadu.ca/shw](http://lakeheadu.ca/shw). Remember that getting help is a smart and courageous thing to do - for yourself, for those you care about, and for those who care about you. Asking for support sooner rather than later is almost always helpful.

## Support for Students

There are many resources available to support our students. These include but are not limited to: [Health and Wellness](#), [Student Success Centre](#), [Student Accessibility Centre](#), [Library](#), [Academic Support Zone](#). Lakehead University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities and/or medical conditions to ensure they have an equitable opportunity to participate in all their academic activities. If you are a student with a disability and think you may need accommodations, you are strongly encouraged to contact Student Accessibility Services (SAS) and register as early as possible. For more information, please contact Student Accessibility Services ([sas@lakeheadu.ca](mailto:sas@lakeheadu.ca)).

## UNIVERSITY POLICIES

All University Policies can be found [here](#). Pay attention to those found under the Category of “Regulations” and “Student-Related”.

**Regulations:** General Information from the [Academic Calendar](#): “It is the responsibility of each student registered at Lakehead University to be familiar with, and comply with all the terms, requirements, regulations, policies and conditions in the Lakehead University Academic Calendar. This includes, but is not limited to, Academic Program Requirements, Academic Schedule of Dates, University and Faculty/School Policies and Regulations and the Fees and Refund Policies and Schedules.”

**Plagiarism and Academic Misconduct:** The University takes a most serious view of offences against academic honesty such as plagiarism, cheating and impersonation. Penalties for dealing with such offences will be strictly enforced. The [Code of Student Behaviour and Disciplinary Procedures](#), includes sections on plagiarism and other forms of misconduct. See the Code under Policies - Student Related in the University Policies at [policies.lakeheadu.ca](http://policies.lakeheadu.ca). Plagiarism is defined in [University Regulation IX](#) with additional examples in Article I, Section 1 of The Code. Sanctions associated with Academic Misconduct are defined in Article II of The Code and Enforcement Procedures are outlined in Article III of The Code. Students wishing to learn more about Academic Misconduct are encouraged to read the [University and relevant Faculty Regulations](#) and The Code (noted above) and access other resources on the [Teaching Commons](#) website.