BIOL 3114-FA 2025
Plant Ecology

Lecture
Monday and Wednesday
5:30-7:00 PM
ATAC 1005

Lab
Tuesday
2:30 - 5:30 PM
CB 3010A

Instructor
Dr. Phil St. Martin
pstmarti@lakeheadu.ca
Office Hours: By appointment, 24 hrs notice

Graduate Assistant
Firas Dib
fdib@lakeheadu.ca
Office hours: TBD

Course Outline

The course will begin with a general introduction to plant ecology followed by more advanced treatments of selected topics on the subject. Theoretical concepts of plant interactions among other species and their environments will be explored, with particular emphasis on plant functional traits and plant response to disturbances. These aspects will be covered in class lectures and discussions, as well as field and laboratory exercises. Students will demonstrate their understanding of these components through lab reports, two exams, and an oral presentation.

Please refer to the lab manual for weekly lab schedule, report due dates, and marking schemes.

Major lecture topics include the following:

- Introduction to plant ecology
- Organizational units of plant ecology
    - Within/between species
    - Populations, communities, and biomes
- Plant life forms and strategies
    - Biotic interactions
    - Abiotic interactions
- Means of plant interactions
    - Resource acquisition
    - Reproduction/Dispersal
    - Interactions with habitats (soil, climate, etc.)
- Interactions over time
    - Disturbances
    - Climate change
- Humans and plant ecology
    - Research methods
    - Application of knowledge

Course Evaluation

Assessment	**Value**
Mid-term exam (in class)	20%
Oral presentation and participation in discussion	10%
Lab reports	30%
Lab Exam (in lab)	15%
Final Exam	25%
Total	**100%**

Examination dates will be announced during the semester.

Course Reading Material

There will be no required text for this course. Instead, the theory presented during lectures will be based on peer-reviewed articles selected to complement the lectures. Access to these papers will be possible through the Lakehead University Chancellor Paterson Library online database found here:

https://libguides.lakeheadu.ca/az/databases

A demonstration walkthrough on how to access and download papers will be provided in the first lecture.

Should students wish to access textbooks related to course topics, they are encouraged to seek the following titles, available in the library or on temporary loan from the course instructor:

Kimmins, J.P. 2004. *Forest Ecology: A foundation for sustainable forest management and environmental ethics* (3rd Ed). Prentice Hall, New Jersey, U.S.A.

Barbour, A.G., J.H. Burk, W.D. Pitts, F.S. Gilliam, and M.W. Schwartz. 1999. *Terrestrial Plant* Ecology (3rd edition). Benjamin/Cummings Publishing Co. Inc., Don Mills, Ontario.