

Topics in Applied Biodiversity

Syllabus: EES3003H Summer 2023

Lecture 102: Plants

Course Instructor: Dr. Stuart Livingstone, EV 444
Office hours: By appointment

Assigned Textbook: Newcomb's Wildflower Guide by Lawrence Newcomb

- Available for purchase through the U of T bookstore
- https://uoftbookstore.com/buy_book_detail.asp?pf_id=12124502
- Other identification keys will be available in hard copy and in library resources

Other required materials: A field notebook is required for this course.

Location: In person lectures in EV224

1) Course Description

Taxonomic skills are in increasing demand among the Canadian conservation community. Taxonomic training will be customized to the students' interests and needs in this course. This training may be in the form of specialized course offerings, one-on-one training with taxonomic experts, or other flexible options.

Students will be required to select and attend an approved taxonomy placement (i.e. Ontario Birds, Ontario Terrestrial Plants). Students will be responsible for fully attending their approved taxonomy placement and submitting a term paper. Approval of the taxonomy placement must be documented by submission of placement preferences, followed by email correspondence from the course coordinator indicating placement approval.

Learning outcomes:

Following the completion of this course, students will have the knowledge and skills required:

1. To understand the nature and principles of plant taxonomy, classification and nomenclature
2. To understand the relevance of plant taxonomy for biodiversity conservation and environmental management.
3. To understand the history of plant taxonomy

- To be able to use morphological characteristics of vegetative and reproductive plant organs for the identification of plant taxa.

Course outline:

Lecture 1: Introduction & a bit of history

Lecture 2: Vegetative Morphology

Lecture 3: Floral Morphology

Lecture 4: Identification/Using Newcomb's guide

Lecture 5: Nomenclature

Lecture 6: Gymnosperms/Angiosperms – Families

Guest lectures:

Nicholas Sookhan, PhD Candidate-UTSC

Agneta Szabo, MEnvSc – Botanist (GEI Ltd.)

Dan Stuart – Ecology Lead (Azimuth Environmental Consulting)

Course schedule:

	17th	18th	19th	20th	21st
9:00	Introductions				
9:30	Overview	Floral morphology	Nomenclature	Gymnosperm families	Highland Creek
10:00					
10:30	Break				
11:00	Overview	Using Newcomb's Guide	Agneta Szabo (GEI)	Dan Stuart (Azimuth)	Review
11:30					
12:00	Lunch				
12:30					
1:00		Nicholas Sookhan (UTSC)			
1:30	Vegetative morphology		Quiz	Angiosperm Families	Review
2:00		Highland Creek			
2:30					
3:00	Break			Break	
3:30			Rouge NUP		
4:00	Highland Creek	UTSC Greenhouse/ Green Roof		In class specimen observation	Exam
4:30					
5:00					

2) Important Deadlines

- Last day to ADD* this course – Friday, April 14th, 2022
- Last day to DROP* this course – Monday, April 17th, 2022
- Scientific Report due date – end of day on Friday, June 16th, 2022
- Please send your term paper topic to Dr. Livingstone by April 30th for approval

3) Academic Honesty

All work in this course is covered by the University of Toronto's policies on Academic Misconduct, which outlines the behaviours that constitute academic dishonest, as well as the processes for addressing academic offences. For details regarding these policies, please see the University's Code of Behaviour on Academic Matters: <http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>. The University treats cases of cheating and plagiarism very seriously, so please **REVIEW THIS MATERIAL** as you are expected to be familiar with it.

Potential offences include, but are not limited to:

In papers and assignments:

- Using someone else's ideas or words without appropriate acknowledgement.
- Submitting your own work in more than one course without the permission of the instructor.
- Making up sources or facts.
- Obtaining or providing unauthorized assistance on any assignment.

On tests and exams:

- Using or possessing unauthorized aids.
- Looking at someone else's answers during an exam or test.
- Discussing the answers with other students during the assessment without permission from the instructor.
- Working together on exams without permission from the instructor.
- Misrepresenting your identity.

In academic work:

- Falsifying institutional documents or grades.
- Falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from Dr. Sturge or from other institutional resources (see <http://academicintegrity.utoronto.ca/>).

4) Attendance

- This course is being offered in person and students are required to attend all activities that take place in our assigned lecture room. However, there is also a field component to this course and students will be expected to spend some time outside of the

classroom practicing identification skills. This can be done independently or with Dr. Livingstone.

- We have one major field trip scheduled to go to Rouge National Urban Park. This is scheduled for Wednesday April 19th, but we may switch to the 20th, depending on the weather forecast. Information about these trips will be made available at the start of the course, but note that you'll need to have some decent hiking shoes, appropriate clothing, and will need to bring your own food/drink. We will travel by van/car to and from Rouge NUP.
- In case of illness, only fully completed official University of Toronto Illness Verification forms will be accepted for consideration. Other notes will not be accepted.

5) Accessibility

We welcome students with diverse learning styles and needs at this University and in this course. If you require some sort of accommodation, please see me and/or contact the AccessAbility Services Office (see below links) as soon as possible. We will work with you to ensure that you are able to meet the course learning objectives successfully. The UTSC AccessAbility Services staff are available by appointment to assess your specific needs, provide referrals, and to arrange appropriate accommodations. All enquiries are confidential. The sooner you let us know your needs, the quicker we can assist you in achieving your learning goals in this course.

UTSC AccessAbility, ability.utsc@utoronto.ca, (416) 287-7560, AA 142 (Arts and Administration Building)

6) Equity, Diversity, and Inclusion Statement

The University of Toronto is committed to equity, human rights, and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another's differences. UTSC does not condone discrimination or harassment against any persons or communities.

7) Assessment

Review paper

Students will write a review paper related to some aspect of the taxonomic group covered in the identification workshop. Potential topics include, but are not limited to historical and/or environmental drivers of vegetation patterns, endangered species, invasive species, biology of species or families.

Your topic must be emailed to, and approved in writing by, your instructor by April 30th.

Format: Digital copy; 3,000 words max (+ references, figures, tables); double-spaced submitted through Quercus (which will use Turnitin to check your submission) by the deadline.
Evaluation: 75% content; 25% grammar / spelling. Late assignments will be accepted at a deduction of 10% per day, including weekends.

Evaluation

Category	Percent
Quiz	10%
Participation	10%
Exam	30%
Scientific Report	50%

8) Plagiarism Detection Tool

You are expected to submit a digital copy of your assignments, when instructed to do so, through Quercus where your work will be checked via a plagiarism detection tool (PDT). The following statement is included for your information, as per University policy: *Normally, students will be required to submit their course essays for review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of PDT service are described on the University's website.*

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