



School of Science
NOST 201
Natural History of the North
Fall 2023
3 Credits

Course Outline

INSTRUCTOR: Larry Gray

E-MAIL: lgray@yukonu.ca

OFFICE: N/A

TIME/DATES: Fridays 9:00 – 12:00

OFFICE HOURS: TBA, please email to make an appointment.

COURSE DESCRIPTION

Students taking this course will gain a broad introductory overview of the natural history of the circumpolar northern regions. The course emphasizes field skills in collecting data and enjoying the natural world. We begin by learning the processes of identification, methods of study and strategies of survival (particularly for winter) for the spectrum of species living in the north. We also introduce the forces which shape and have shaped the northern landscape including climatic, geomorphic and soil forming processes. The course is circumpolar in context, but local Yukon examples will be emphasized.

COURSE REQUIREMENTS

Admission to the second year of the Northern Studies program, or admission to the Renewable Resources Management program, or permission of the instructor. Students must be willing to engage in field activities in inclement weather and uncomfortable circumstances such as insects and steep terrain. A certain (moderate) level of physical fitness is required for activities such as hiking.

EQUIVALENCY OR TRANSFERABILITY

Please be aware that receiving institutions determine course transferability. Find further information regarding course transferability here:

<https://www.yukonu.ca/admissions/transfer-credit>

LEARNING OUTCOMES

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

1. use standard field manuals to identify naturally occurring species including birds, mammals, plants, fish and some invertebrates.
2. compile a list of commonly found northern species,
3. identify the adaptations and strategies northern species exhibit to survive and thrive in a northern environment,

4. use various outdoor study aids, binoculars, spotting scopes, manuals, cameras, and collection apparatus,
5. use ethical, safe, and respectful behavior in the collection of data and enjoyment of natural history,
6. be able to express in writing personal field observations of species and phenomena.

COURSE FORMAT

There will be three hours of lecture (in two 1.5-hour blocks) per week. Students are expected to read and watch videos posted on the Moodle site and participate in at least two field trips that may occur outside of class time. Students are required to keep a journal of natural history observations. Although it will vary from individual to individual, students should expect to spend at least 2 hours on course material outside of the classroom time (per week) on studying, reading, field trips, or completing assignments.

Delivery format

This course will be delivered in a face-to-face (in person) format. Students will be expected to access the YU online learning platform for additional material (Moodle).

EVALUATION

Assignment	Grade	Due Date
Collections (2)	20%	October 13 & November 3
Photo Essays/Stories (2)	20%	October 20 & November 10
Occasional Reflection Papers	10%	open
The Natural History of You	20%	November 24
Natural History Journal	20%	October 20 & November 24
Final Exam	10%	December 14

COURSE WITHDRAWAL INFORMATION

The last date to withdraw without academic penalty is Nov. 2, 2023. Refer to the YukonU website for other important dates.

TEXTBOOKS & LEARNING MATERIALS

There is no official textbook for this course, but students are expected to read suggested online and print materials, watch videos, and access scientific articles to support their writing and learning.

ACADEMIC INTEGRITY

Students are expected to contribute toward a positive and supportive environment and are required to conduct themselves in a responsible manner. Academic misconduct includes all forms of academic dishonesty such as cheating, plagiarism, fabrication, fraud, deceit, using the work of others without their permission, aiding other students in committing academic offences, misrepresenting academic assignments prepared by others as one's own, or any other forms of academic dishonesty including falsification of any information on any Yukon University document.

Please refer to Academic Regulations & Procedures for further details about academic standing and student rights and responsibilities. <https://www.yukonu.ca/policies/academic-regulations>

ACADEMIC ACCOMMODATION

Reasonable accommodations are available for students requiring academic accommodation to fully participate in this class. This accommodation is available for students with a documented disability, chronic condition or any other grounds specified in section 8.0 of the Yukon University Academic Regulations (available on the Yukon University website). It is the student's responsibility to seek these accommodations by contacting the Learning Assistance Centre (LAC): LearningAssistanceCentre@yukonu.ca.

TOPIC OUTLINE (Subject to change) *TBA!*

Week	Dates	Topic
1	September 15	Course Introduction Natural History and Science The Modern Naturalist A short field trip to identify trees (Dendrology)
2	September 22	Tools of the Trade (field equipment and supplies) Recording field observations, note taking, journal-keeping The Technological Naturalist: iNaturalist, eBird and other apps
3	September 29	Natural history writing Natural history collections Northern Biomes: Introduction to the Taiga (Boreal Forest) and Arctic Tundra
4	October 6	Borealis (film) Biome Taiga (films)
5	October 13	Boreal Biome: Classification Distribution Ecozones Environmental characteristics Ecosystems Characteristic animal and plant species Processes that shape the boreal biome

		The Future (Conservation and Climate Change)
6	October 20	Boreal Biome (Trees & Plants)
7	October 27	Boreal Biome (Birds & Mammals)
8	November 3	Boreal Biome (Fish, Amphibians, Invertebrates)
9	November 10	Arctic Tundra Biome: 1. Classification 2. Distribution 3. Ecozones 4. Environmental characteristics 5. Ecosystems 6. Characteristic animal and plant species 7. Processes that shape Arctic biomes 8. The Future (Conservation and Climate Change)
10	November 17	Arctic Tundra Biome (continued)
11	November 24	Life in the cold: plant and animal adaptations to life in the north
12	December 1	Life in the cold: plant and animal adaptations to life in the north (continued)