



School of Science

RRMT 125
Renewable Resources Measurements
Spring 2024
3 Credits

Course Outline

INSTRUCTOR	Stephen Biggin-Pound	OFFICE HOURS	After class
OFFICE	A2105	CLASSROOM	T1083 / Outdoors
E-MAIL	sbigginpound@yukonu.ca	CLASS TIME	April 22 – May 1, 9 am – 5 pm
TELEPHONE	867-668-8796	CRN	20218 / 20274
Science office: Ayamdigut Campus A2400, science@yukonu.ca, 867-668-8887			

COURSE DESCRIPTION

RRMT 125 is a practical course in which students will learn how to collect renewable resources data using a variety of sampling techniques and then compile the information into products needed for management. Some of the topics covered will include survey techniques for birds, tree seedling regeneration, forest mensuration, small mammals, forest inventory, caribou winter habitat, stream discharge, and ecosystem classification. Emphasis will be on sampling techniques and principles, data entry and understanding how data sets are used in subsequent management applications.

COURSE REQUIREMENTS

Prerequisite(s): NOST 215 and GEOG 250, or permission of the instructor.

EQUIVALENCY OR TRANSFERABILITY

UNBC NREM 1xx (3)

Students are reminded that it is always the receiving institution that determines whether a course is acceptable as an applicable, equivalent course or if it may be transferred to their program for credit. Find further information at: <https://www.yukonu.ca/admissions/transfer-credit>

LEARNING OUTCOMES

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

1. Apply quantitative measurement techniques, especially ones used by local resource managers (practical job skills)
2. Plan and prepare to collect and process data (e.g. by making up custom data collection sheets)
3. Collect field data, enter it on a computer, error check the data, and then carry out a descriptive

statistical analysis.

4. Explain the difference between the terms accuracy and precision and understand the causes of measurement errors and how to minimize them.
5. Calculate statistical measures of central tendency (mean, mode and median) and variation (range, variance and standard deviation).
6. Use GPS and ArcGIS or other mapping software to work with geo-referenced data.

Secondary course objectives:

- Introduce local resource managers to students so they can try and establish contacts and learn about job opportunities.
- Ensure students' species identification skills are on target.
- Provide opportunities to obtain practice public speaking.
- Provide reminders about the value of safe working habits for upcoming field season.

COURSE FORMAT

Delivery format

The practical focus of this course incorporates mandatory field and lab activities. Daily activities will generally start in the classroom with a short introduction to techniques and theory. This will be followed by fieldwork in which sampling and data collection techniques are practised. Data entry and analysis will occur at the end of the day. Students will be expected to spend two to three hours each evening completing field reports or assignments from the day's work and preparing for the next day's activities.

Workload

Lectures

This is a full-day field camp type course that incorporates lecture and lab into daily activities. Some portions of each day may be spent inside in a classroom or computer lab, while every day will include portions of outdoor field activities. Students can expect to spend full days with the course, from 9 am to 5pm, for 7 days of scheduled class.

Assignments

There are assignments associated with our learning activities each day. Students should expect to spend time outside of scheduled class in the evenings working on assignments. There is one formal written report assignment and a final presentation project.

EVALUATION

Attendance & Participation

This is an intensive, fast paced course in which it will be very difficult to make up work that is missed. Attendance is mandatory. A student may be dismissed from the course if more than 10% of scheduled contact hours are missed. Attendance and participation is worth 10% of the final mark in the course.

Assignments

A series of daily assignments will be assigned throughout the course and based on the activities of each day. The assignments will be worth 40% of the final mark in total, with assignments weighted according to the workload and difficulty involved.

Seminar

A presentation assignment will give students an opportunity to explore a topic of their choice that is relevant to the course content in more depth. Topics must be approved by the instructor. Presentations will be made to share learning with the rest of the class and practice presenting information in a professional context. The presentation is worth 10% of the final mark in the course.

Exams

There is a final exam consisting of a practical field skills component and a written component. The final exam is worth 40% of the final mark in the course.

Attendance and Participation	10 %
Assignments	40 %
Presentation Assignment	10 %
Final Exam	40 %
Total	100%

TEXTBOOKS & LEARNING MATERIALS

Plants of Northern British Columbia Edited by A. MacKinnon, J. Pojar and R. Coupe. Revised edition

Birds of North America by C.S. Robbins, B. Bruun, H.S.Zim, J. Latimer and A. Singer. Revised edition 2001 or equivalent field guide for western North American birds.

Each student will require a waterproof notebook, clipboard, pencil, and calculator. Suitable (warm and waterproof) clothing for fieldwork is required. On most days we will eat lunch in the field, so a thermos or water bottle and packed lunch will be required.

COURSE WITHDRAWAL INFORMATION

Students may officially withdraw from a course or program without academic penalty up until two-thirds of the course contact hours have been completed. Specific withdrawal dates vary, and students should become familiar with the withdrawal dates of their program. See withdrawal information at www.yukonu.ca/admissions/money-matters

Refer to the YukonU website for important dates: www.yukonu.ca/admissions/important-dates

Refunds may be available. See the Refund policy and procedures at www.yukonu.ca/admissions/money-matters

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 (updated bi-annually) for further details about academic standing, and student rights and responsibilities: www.yukonu.ca/policies/academic-regulations

ACCESSIBILITY AND ACADEMIC ACCOMMODATION

Yukon University is committed to providing a positive, supportive, and barrier-free academic environment for all its students. Students experiencing barriers to full participation due to a visible or hidden disability (including hearing, vision, mobility, learning disability, mental health, chronic or temporary medical condition), should contact Accessibility Services for resources or to arrange academic accommodations: access@yukonu.ca.

TOPIC OUTLINE

Specific course topics will vary depending on the year, seasonal conditions, regional issues of importance, and the availability of guest professionals. In general, the course is a tour through the major disciplines of natural resources management, incorporating a typical field activity or measurement protocol in each discipline. Major regional issues will be incorporated. Local projects will be introduced where possible. Course topics and field activities may include but are not limited to: field measurement basics, field mapping, GPS and compass navigation, hydrology and aquatic resources, fish and fish habitat, birds and bird habitat, wildlife and wildlife habitat, ecology, forest and wildland fire management.