COURSE OUTLINE

RRMT 235
FOREST MANAGEMENT

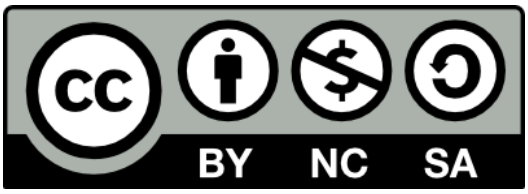
3 **CREDITS**

PREPARED BY: Stephen Biggin-Pound, Instructor
DATE: October 2, 2020

APPROVED BY: Joel Cubley, Chair, School of Science
DATE: October 2, 2020

APPROVED BY SENATE: Click or tap to enter a date
RENEWED BY SENATE: Click or tap to enter a date

SCHOOL OF SCIENCE
RRMT 235
Forest Management
3 Credits
Fall, 2020



FOREST MANAGEMENT

INSTRUCTOR: Stephen Biggin-Pound
OFFICE LOCATION: A2105
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TELEPHONE: 867.668.8796

OFFICE HOURS: After class
CLASSROOM: Online
TIME: Tuesdays and Thursdays, 10:30 – 11:55 AM
DATES: September 1st to December 8th, 2020

COURSE DESCRIPTION

This course introduces the boreal forest as a complex ecosystem with a variety of values. Current management issues and methodologies to meet competing demands are examined. The course will cover the basics of forest management, with specific reference to the Yukon.

PREREQUISITES

Successful completion of RRMT 125, RRMT 121 or BIOL 101, and RRMT 122 or GEOG 250, or permission of the instructor. This is a second-year level course and expectations are set accordingly. Students are assumed to have taken other university-level courses in addition to the prerequisites.

RELATED COURSE REQUIREMENTS

Registration in RRMT 235L.

EQUIVALENCY OR TRANSFERABILITY

UNBC FSTY 2XX (3)

LEARNING OUTCOMES

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

- Describe the characteristics and ecology of boreal forests.
- Describe the role of natural disturbance (fire, insects, disease etc.) in shaping boreal forests.
- Explain how forested and other ecosystems are classified.
- Describe forest management policy and legislation in the Yukon.
- Describe what is meant by ecosystem-based approach to managing for biological diversity and other non-timber values.
- Understand the principles of forest planning and management.
- Describe the various silvicultural systems, reforestation, and stand tending practices used in operational forestry and evaluate their appropriateness for boreal forests and for different objectives.

COURSE FORMAT

The course will be delivered as a 50/50 mix of synchronous online lectures via Zoom and asynchronous online learning via Moodle.

- Material will be presented in the form of lectures, readings, discussions, lab and field activities, and assignments. There will be guest lectures by local professionals involved in forest resource management.
- Assignments will be submitted in the form of written reports and/or given as presentations to the class.
- While some activities may be done in groups, results and reports MUST be done individually.
- A pass in the lab component of this course is required to obtain credit for this course.

LAB

- Mandatory outdoor, Face2Face lab sessions will provide students with opportunities to practice the technical skills required to manage resource use in boreal forests. COVID-19 precautions will be required.
- Please be prepared for outdoor work in a winter forest setting, including appropriate

clothing and travel by snowshoes or skis where required. Students should be capable of hiking 2 km in forest terrain carrying their personal daypack and using field equipment.

ASSESSMENTS:

Attendance & Participation

Lab sessions will often consist of observations and the collection of data required to complete lab assignments. Therefore, it is necessary to attend the lab session in order to be able to complete the assignment.

Assignments

Assignment #1: Presentation and Report 20%

Students have the opportunity to select a topic of their own particular interest from within the wide field of Forest Management to focus on for self-directed learning. The topic chosen must be and approved by the instructor. A written report of 5-10 pages is required. Students will prepare a brief presentation to share their learning with the rest of the class and promote their own learning.
Grading will be broken down as follows:

1) Topic choice and proposal (5%)
2) Final report (7%)
3) Presentation of 15 minutes in class (8%)

Assignment #2: Site Plan or Field Research Project 25%

Students will apply their learning of forest management planning and operations to prepare a Site Plan for a small hypothetical harvest block within a timber harvest area. A local forested area with easy access will be selected for this assignment. The site plan must be presented in the standard format in use in the Yukon, with a short, written report and a detailed site map. Students will be required to review relevant legislation, regulations and Forest Management Plans, and to conduct all necessary field work to gather site and stand data

and survey data required for mapping. Field work will be conducted in groups, but the Site Plan must be submitted individually.

Alternatively, students may choose to pursue a research project involving the collection and analysis of field data using standard forestry field equipment. The research project option must be chosen in consultation with the instructor.

Quizzes **10%**

A series of 2 to 4 short quizzes, each covering the content of one section of the course.

Lab Assessments

The lab component of the course focuses on practical knowledge and field skills. Assessments will focus on interpretations of field guides and manuals and on the application of standard field skills.

Lab Quizzes **10%**

There will be 2 lab written quizzes covering field-related concepts and the interpretation of field guides and manuals, one mid-term and one final. 5% each.

Lab Practical **15%**

There will be a final lab practical exam to assess the application of critical field skills in a field-based setting. The lab practical will take place as the last lab session of the course. 15%.

Final Exam **20%**

There is a written final exam to assess learning. It will consist of a variety of short- and long-answer questions and will include practical applications such as diagram and map questions. See the School of Science final exam schedule for date and location.

EVALUATION:

Assignment 1	20%
Assignment 2	25%
Quizzes	10%
Lab Quizzes	10%
Lab Practical Exam	15%
Final Exam	20%
Total	**100%**

REQUIRED TEXTBOOKS AND MATERIAL

No textbook is required. Readings and resources will be provided on Moodle.

ACADEMIC AND STUDENT CONDUCT

Information on academic standing and student rights and responsibilities can be found in the current Academic Regulations that are posted on the Student Services/ Admissions & Registration web page.

PLAGIARISM

Plagiarism is a serious academic offence. Plagiarism occurs when a student submits work for credit that includes the words, ideas, or data of others, without citing the source from which the material is taken. Plagiarism can be the deliberate use of a whole piece of work, but more frequently it occurs when students fail to acknowledge and document sources from which they have taken material according to an accepted manuscript style (e.g., APA, CSE, MLA, etc.). Students may use sources which are public domain or licensed under Creative Commons; however, academic documentation standards must still be followed. Except with explicit permission of the instructor, resubmitting work which has previously received credit is also considered plagiarism. Students who plagiarize material for assignments will receive a mark of zero (F) on the assignment and may fail the course. Plagiarism may also result in dismissal from a program of study or the University.

YUKON FIRST NATIONS CORE COMPETENCY

Yukon University recognizes that a greater understanding and awareness of Yukon First Nations history, culture and journey towards self-determination will help to build positive relationships among all Yukon citizens. As a result, to graduate from ANY Yukon University program, you will be required to achieve core competency in knowledge of Yukon First Nations. For details, please see www.yukonu.ca/yfnccr.

ACADEMIC ACCOMMODATION

Reasonable accommodations are available for students requiring an academic accommodation to fully participate in this class. These accommodations are 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. If a student requires an academic accommodation, he/she should contact the Learning Assistance Centre (LAC): lac@yukonu.ca.

TOPIC OUTLINE

Week	Topics
Forest Ecology	
1	Global Forest Biomes and Canadian Forests
2	Forest Ecology and the Boreal Forest
3	Soils and Ecosystem Classification
4	Disturbance Ecology and Climate Change
Introduction to Forest Management	
5	Intro to Forestry in Canada and the Yukon
6	Sustainable Forest Management
Forest Management	
7	Forest Management Legislation and Forest Resources Management Planning
8	Timber Harvest Planning (THP) and Site Planning (SP)
Forest Operations	
9	Inventory and Timber Cruising
10	Silviculture Systems
11	Harvest Systems
Forests Disturbance Management	
12	Fire Ecology and Management
13	Forest Health
Last Week of Classes	
14	Assignment 1 Presentations