



COURSE OUTLINE

RRMT 235

FOREST MANAGEMENT

**45 HOURS
3 CREDITS**

PREPARED BY: Stephen Biggin-Pound DATE: November 28, 2016

APPROVED BY: DATE:

APPROVED BY ACADEMIC COUNCIL: (date)

RENEWED BY ACADEMIC COUNCIL: (date)



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APPLIED SCIENCE AND MANAGEMENT
Forest Management
3 CREDITS
Winter, 2017

FOREST MANAGEMENT

INSTRUCTOR: Stephen Biggin-Pound	OFFICE HOURS: After class
OFFICE LOCATION: A2105	CLASSROOM: C1511
E-MAIL: sbiggin-pound@yukoncollege.yk.ca	TIME: Lecture: M and W, 9:00 to 10:30am Lab: F, 9:00am to 12:00pm
TELEPHONE: 867-668-8796	

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, and admission to the second year of the Renewable Resources Management Program, or permission of the instructor.

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

- 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 indoor and outdoor lab sessions and occasional field trips (weather permitting) will provide students with opportunities to practice the technical skills required to manage resource use in boreal forests.
- 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 a compass or clinometer to take readings.

ASSESSMENTS

Attendance

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 15-20 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. 10%.

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

Assignment1	20%
Assignment 2	25%
Quizzes	10%
Lab Quizzes	10%
Lab Practical Exam	15%
Final Exam	20%
Total	100%

REQUIRED TEXTBOOKS AND MATERIALS

No text book 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 students present the words of someone else as their own. Plagiarism can be the deliberate use of a whole piece of another person's writing, but more frequently it occurs when students fail to acknowledge and document sources from which they have taken material. Whenever the words, research or ideas of others are directly quoted or paraphrased, they must be documented according to an accepted manuscript style (e.g., APA, CSE, MLA, etc.). Resubmitting a paper 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 College.

YUKON FIRST NATIONS CORE COMPETENCY

Yukon College 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 College program, you will be required to achieve core competency in knowledge of Yukon First Nations. For details, please see www.yukoncollege.yk.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 College Academic Regulations (available on the Yukon College 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) at (867) 668-8785 or lassist@yukoncollege.yk.ca.

RRMT 235: FOREST MANAGEMENT

SYLLABUS - Winter 2017

Unit Heading and key topics	Percentage of course
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Introduction to Forest Management	5%
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- The Forest Resource
- History of Forestry in Canada
- Forest and wood products
- Current Forest Management definition and principles

Forest Ecology	10%
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- Ecology review
- All about trees
- Silvics
- Ecosystem Classification
- The Boreal Forest

Disturbance Ecology	10%
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- Resilience
- Fire
- Pests and Diseases
- Human impacts
- Disturbance in the Boreal forests

Forest Management Planning	15%
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- Approaches and Methods in Forest Management
- Legislation
- Land Use Planning
- Forest Management Planning process and Yukon FMPs

- Timber and Non-Timber Forest Products
- First Nations agreements and forest management
- Certification
- Ethics and public accountability

Forest Operations **20%**

- Inventory
- Silvicultural Systems
- Engineering
- Harvest operations
- Disturbance management - Forest Health
- Monitoring

Forest Industry Issues **10%**

- Climate Change and the future of forests
- Carbon storage
- Forest Economics and global trade
- Certification
- Current Canadian and global issues

Research **10%**

- Contributions of research to forest management
- Adaptive Management
- Current research
- Future directions

Student Presentations **10%**

Optional Topics (student directed) **10%**