GRANDE PRAIRIE REGIONAL COLLEGE

DEPARTMENT OF SCIENCE AND TECHNOLOGY

Bachelor of Applied Forest Resource Management

Forest Management Planning FO4240

Pre-requisite: Forest Management FO3300

Calendar Description:

Students will participate in multiple resources planning, leading to an understanding of developing management plans for different forest areas. Application of principles of technical forestry, business practices, and integrated forest resources to meet owner objectives within legislative constraints will be stressed. Planning, implementation and control of forestry operations within project, annual, and operational time frames will be discussed.

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Lectures: Mondays & Wednesdays 1:00 to 2:20 p.m.
B304

References:
Will be given throughout the course, and may be accessed in the library or on the Internet.

Course evaluation:

Assignment	Marks	Date Assigned	Due Date
FMP	20	8 Jan	29 Jan
FORSIM	10	29 Jan	12 Feb
AOP	20	12 Feb	5 Mar
Socio-economic	25	5 Mar	24 Mar
Wildlife	25	24 Mar	10 Apr

Barring tragic circumstances, late assignments will not be accepted, marked, or included in the course mark.

There will be no exams in the course. The projects will consist of preparing management plans, at increasing levels of complexity. Your work will be evaluated using the following criteria:

Logic, so provide reasoning for your planning decisions;
Knowledge, ability to integrate previous experience and course work into planning;
Referencing, ability to find information, and properly reference sources; and
Communication technique, including grammar, format, spelling, appropriate use of graphs, maps, and figures.

Course structure:

This course will be conducted primarily through the assignment and completion of forest management planning projects. The course is designed to integrate all elements of previous forestry course work, with the intention of requiring students to bring to this course all of their academic and work experience and to apply their knowledge earned to date.

Course scheduling is for two 1½ hour periods per week. The course will be presented as follows:

- One instructional period per week will be used to develop solutions to assigned case studies (detailed below). During these sessions the instructor will be reviewing and guiding progress, and directing lines of research. On the due date for the assignment, students will present their case study solutions, and critique each other's work.
- One instructional period per week will be used to discuss issues surrounding each case study in detail. These time periods will include lectures, current readings, and, when possible, presentations from industry foresters.

Weeks	Case Study	Lecture material
1 – 3	Case study #1 Forest Management Plan	Critical sections of FMP (objectives, planning team, planning horizons, etc.) Application of regulations in Alberta
4 – 5	Case study #2 FORSIM	Forest modeling – determining the LTHL for an area and AAC calculations Sensitivity analyses
6 – 8	Case study #3 Annual Operating Plan	Application of ground rules Block sequencing
9 – 11	Case study #4 Socio-economic concerns	Non-timber resources (recreation, oil and gas, trapping, etc.) planning within FMP Theory and practice of conflict resolution
12 – 14	Case study #5 Wildlife and Special Places	Integration of wildlife conservation areas into FMP Special Places legislation

At the beginning of the course, each student will be given a map of their own forested area and associated Phase III data. They will work with their area for all case studies, except Case Study #2 (FORSIM).

Case study #1 – Forest Management Plan

Students will be required to write an FMP for their forest. Given the short time period, certain sections will be emphasized, and others must be covered in a rudimentary fashion. Several sections such as management of non-timber resources, restrictions within wildlife areas, and procedures for conflict resolution will be added during the development of later case studies.

Case study #2 - FORSIM

The FORSIM modeling program will be used to learn about long run sustained yield levels, AAC, and how these are calculated. A stand-alone assignment has been developed for this purpose, and will not form part of the students' FMP development.

Case study #3 – Annual Operating Plan

Students will be required to develop detailed Annual Operating Plans for their forest for five years into the future, including road layout, harvest block sequencing, and calculation of volume. Topics included in this case study will be manipulation of harvest levels with fluctuation in wood supply and prices, application of ground rules, and the approval process for AOPs.

Case study #4 – Socio-economic concerns

At this stage in the course, each student will be presented with a unique problem to solve in the context of managing their forest. These scenarios may include trap line disruption, other industry use of roadways, requests for preferential work from local and/or aboriginal residents, concerns about harvesting or silvicultural practices, or issues surrounding recreational use of the forest. The problems will be first presented in a confrontational manner, requiring students to manage both the problem and the people concerned. Each student will be required to present their solutions in class to other students acting as the aggrieved parties.

Case study #5 – Wildlife and Special Places

Management of wildlife species and special places within the forest will be covered in the last case study. It will involve writing a section of the FMP to handle any restrictions associated with this item. Each student will be assigned an animal or fish species for which management is required. They must research not only the regulations surrounding wildlife management, but also current research on their species to recommend measures which may not be included in existing regulations.

As students complete each case study, their original FMP will have to be revised and more sections added, such as a process for conflict resolution, provision for wildlife species, or revised AAC targets. In relating the final 3 case studies to the first, a feedback mechanism is built into the whole course, whereby students will be required to practice adaptive management in the ongoing development and revision of an FMP. The final two assignments have a higher percentage attached to them. Included in these submissions should be an explanation of any changes to the original FMP that were necessary to meet new requirements.