GRANDE PRAIRIE REGIONAL COLLEGE
DEPARTMENT OF SCIENCE AND TECHNOLOGY

Bachelor of Applied Forest Resources Management

FOREST MANAGEMENT I: FO3300 (Fall 1998)

Pre-requisites OR Corequesite: FOREST ECONOMICS-FO3190

Calender description: The manipulation of the forest to meet the objectives of landowners, society, and/or caretakers in North America with stress on Western Canada. Multiple use forestry and environmental impacts or currently available forest management tools, techniques and strategies. Acquisition of personal, oral, and written communication skills, development of desirable work habits and ethics

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Lectures: Tuesday, Thursday 13:00 – 14:50 Room: A308

Course objectives: Upon completion of the course, the student should be able to:

1. develop an overall context for forest management and an appreciation of the complexities that exist when one is developing and designing a management plan for a forest;
2. know how to apply several useful management tools (such as decision analysis, linear programming, simulation) in a forest management context;
3. show an understanding of several planning concepts and techniques and have some knowledge of how they are used, or could be used in Alberta.

Text:
Davis, Lawrence S. and Johnson, K. Norman (1987). Forest Management, 3rd edition. McGraw-Hill, Inc. Toronto, Canada. 790 pp.

Useful references:
Duerr, William A., Teeguarden, Dennis E., Christiansen, Neils B., and Guttenburg, Sam (1982). Forest resource management-Decision-making principles and cases. O.S.U. Bookstores. Corvallis, USA. pp. 612
Kimmins, Hamish (1997). Balancing Act-Environmental issues in forestry. UBCPress. Vancouver, Canada. 305 pp.
Oliver, Chadwick and Larson, Bruce (1996).Forest stand dynamics. Wiley and Sons. Toronto, Canada. 520 pp.
Ross, Monique M. (1995).Forest management in Canada. Calgary, Canada. Canadian Institute of Resources Law. pp 388.

Evaluation: Evaluation for this course is based on these four items.

Assignments (5)	15%
Project	10%
Mid-term examination (1)	35%
Final exam (1)	40%

Assignments are to be handed in on time. Late assignments will be accepted; but will be subjected to an automatic deduction of 25% per day that the assignment is late. Completion of all assignments and the mid-term is necessary in order to pass the course. The final exam must be completed with a grade of at least 50% in order to be eligible for credit for this course.

Course Schedule

TOPIC 1: *Introduction to forest management*

Ch. 2: Conflicting demands on Canadian forests. In Ross, Monique M. (1995).Forest management in Canada. Calgary, Canada. Canadian Institute of Resources Law. pp 388
Ch. 2-The Peter Pan principle in renewable resource conflicts. In Kimmins, Hamish (1997). Balancing Act-Environmental issues in forestry. UBCPress. Vancouver, Canada. 305 pp.

TOPIC 2: *Introduction to decision analysis*

D&J: Ch. 6
D&T&C&G: Ch. 3, 4, 5

TOPIC 3: *Modeling and decision analysis*

D&J: Ch. 7,8
Farnum, Peter, Lembersky, Mark R.,Hyink, David M. (1986). Use and interpretation of forest growth models for decision making. pp. 337-343. In Oliver, Chadwick D., Hanley, Donald, and Johnson, Jay ed. Douglas-fir: Stand management for the future. College of Forest Resources, University of Washington. Seattle, USA. pp. 388.

Flewelling, James W., Curtis, Robert O. and Hyink, David M. (1986). Forest growth models in the 1990s: Functions, sources, needs. pp. 364-369. In Oliver, Chadwick D., Hanley, Donald, and Johnson, Jay ed. Douglas-fir: Stand management for the future. College of Forest Resources, University of Washington. Seattle, USA. pp. 388

TOPIC 4: *Forest and stand dynamics*

D&J: Ch. 2, 3, 4

TOPIC 5: *Forest and stand dynamics (cont'd)*

D&J: Ch. 5

TOPIC 6: *Evaluation of alternatives*

D&J: Ch. 8

TOPIC 7: *Review and Mid-term*

TOPIC 8: *Valuation I (Appraisal and tree stand; land and forest valuation)*

D&J: Ch. 9, 10

TOPIC 9: *Valuation II (Tree, stand, land and forest valuation, non-timber valuation)*

D&J. Ch. 11-12

TOPIC 10: *Forest management planning (Classical forest regulation)*
D&J: Ch 14

TOPIC 11: *Forest management planning (Tree/stand decisions; stand/forest decisions)*
D&J: Ch 13

TOPIC 12: *Forest management planning*
D&J: Ch. 15

TOPIC 13: *Forest management planning (Scheduling with constraints/analysis of harvest schedules*
D&J: Ch. 16

TOPIC 14: Forest management in perspective-The big picture