

GRANDE PRAIRIE REGIONAL COLLEGE
DEPARTMENT OF SCIENCE AND TECHNOLOGY
Bachelor of Applied Forest resources Management

Forest Harvesting and Transportation: FO3350 (Winter 1999) 3(3-0-3)

Transfer status: Under discussion

Pre-requisites: FO3010-Forest Engineering Principles

Calendar description: Harvesting system design, forest operations as an integral component of silvicultural system, planning forest operations to meet integrated resource objectives; harvest unit design, harvest scheduling, harvest machinery, cable logging systems

Instructor: Charles A. Backman
Office: J208
Phone: 539 2846
e-mail: backman@eprc.ab.ca

Lectures: Monday, Wednesday, Friday	14:00 - 14:50	Room: D213
Lab: Friday	15:00 - 17:50	Room: B307

Course objectives: Upon successful completion of the course, the student will have developed the following:

1. Appreciation for the different types of harvesting systems
2. Ability to estimate harvesting costs and compare harvesting equipment
3. Harvest scheduling concepts and practices
4. Appreciation for project management, tools, and iso audits
5. Alberta harvesting process

Text:

Conway, Steve (1982). Logging practices – Principles of timber harvesting systems, Revised edition. Miller Freeman Publications, Inc. San Francisco, California. 432 pp.

Other reading material:

Forest harvesting reading book with articles
Other material as assigned

Course Outline:

SCHEDULE (Subject to change)

Week 1	Introduction, , course outline, student evaluation, project, etc. Forest management and harvesting systems Logging history in Alberta The importance of the forest industry in Alberta
Week 2	Harvesting techniques and concepts
Week 3	felling, harvest methods, chipping, transportation, loading
Week 4	helicopter, balloon, horse logging systems
Week 5	Budgeting and cost estimation
Week 6	concepts, terms, examples
Week 7	Mid-term and conclusion of budgeting and cost estimation
Week 8	Reading week
Week 9	Harvest planning
Week 10	General considerations – social factors, economic issues, other values
Week 11	ground rules, environmental regulations
Week 12	Harvest scheduling concepts and practices
Week 13	Owner objectives, Society objectives, forest management
Week 14	Silvicultural management systems, modeling and simulation
Week 15	Review

Laboratory

Week 1:		NO LAB
Week 2:		
Week 3:		
Week 4:		
Week 5:		
Week 6:		
Week 7:	Mid-term	NO LAB
Week 8:	Reading Week	NO LAB
Week 9:		
Week 10:		
Week 11:		
Week 12:		
Week 13:		
Week 14:		Presentation
Week 15:	Last week	Review

TOPICS TO BE COVERED DURING LABORATORY COMPONENT:

Logging operations: video presentations
Two field trips to view various harvesting operations
Three speakers from the forest sector
Harvest scheduling simulation

Evaluation:

Mid-term	25%
Assignments and quizzes	15%
Labs	10%
Presentation	10%
Final	40%

Assignments are to be handed in on time. Late assignments/labs will be accepted; but will be subjected to an automatic deduction of 25% per day that the assignment is late. Completion of all assignments/labs 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.