

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

**Forest Harvesting and Transportation: FO3350 (Winter 2000) (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  
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Lectures: Monday, Wednesday	13:00 - 14:20	Room: E306
Lab: Tuesday	14:30 - 17:20	Room: B305

**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.**

BCIT (1996). Introduction to forest harvesting methods. BCIT, Vancouver, Canada  
Other material as assigned

## **Course Outline:**

### **SCHEDULE (Subject to change)**

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

## Laboratory

Week 1:		NO LAB
Week 2:		Equipment manufacture
Week 3:		
Week 4:		Selective harvesting
Week 5:		
Week 6:		Ground based system
Week 7:	Mid-term	NO LAB
Week 8:	Reading Week	NO LAB
Week 9:		Cable harvesting
Week 10:		
Week 11:		Equipment purchase
Week 12:		
Week 13:		Audit
Week 14:		Presentation
Week 15:	Last week	Review

### Evaluation:

Mid-term	30%
Assignments and quizzes	10%
Labs	15%
Presentation	15%
Final	30%

Assignments are to be handed in on time. Late assignments/labs will be accepted; but will be subjected to an automatic deduction of 10% 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 in order to be eligible for credit for this course.