

**GRANDE PRAIRIE REGIONAL COLLEGE**  
**DEPARTMENT OF SCIENCE AND TECHNOLOGY**

**Bachelor of Applied Forest Resources Management**

**Forest Harvesting and Transportation: FO3350 (Winter 2003) (3-0-3)**

**Pre-requisites:** FO3010-Forest Engineering Principles or permission of the instructor

**Course description:** Harvesting systems including cable harvesting design, forest operations as an integral component of silvicultural system, harvest scheduling, harvest machinery and purchase, cost estimation

There will be all day laboratories throughout this course. At the present time, these labs are scheduled for February 7, and February 14. A half-day lab is scheduled for tentatively January 10 and 17 at the Training Forest and tentatively January 24 at Valleyview. These All - Day labs and half day labs take place on Fridays.

Please note that participation in all labs is expected.

**Instructor:** Charles A. Backman  
 Office: J208  
 Phone: 539 2846  
 e-mail: [backman@gpre.ab.ca](mailto:backman@gpre.ab.ca)

Lectures: Monday, Wednesday	10:00 – 11:20	Room: M129
Lab: Friday	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. 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)

(January 6) Week 1	Introduction, course outline, student evaluation, project, etc.
(January 13) Week 2	Harvesting techniques and concepts Selective harvesting
(January 20) Week 3	Felling, balloon, horse logging systems, helicopter
(January 27) Week 4	Ground harvest methods
(February 3) Week 5	Cable systems
(February 10) Week 6	Chipping, transportation, loading
(February 17) Week 7	Conclusion of harvesting systems, Mid-Term
(February 24) Week 8	Reading Week
(March 3) Week 9	Harvest scheduling
(March 10) Week 10	Equipment manufacture/ Equipment purchase
(March 17) Week 11	Costing and budgeting I
(March 24) Week 12	Costing and budgeting II
(March 31) Week 13	Regulations
(April 7) Week 14	Harvest design
(April 14) Week 15	Review

# Laboratory

(January 6) Week 1:		College Harvesting
(January 13) Week 2:		College Harvesting
(January 20) Week 3:		Selective harvesting
(January 27) Week 4:		
(February 3) Week 5:		Ground harvesting
(February 10) Week 6:		Cable harvesting
(February 17) Week 7:	Mid-term	NO LAB
(February 24) Week 8:	Reading Week	NO LAB
(March 3) Week 9:		Harvest scheduling
(March 10) Week 10:		Equipment manufacture
(March 17) Week 11:		Costing
(March 24) Week 12:		Harvest design
(March 31) Week 13:		Harvest design
(April 7) Week 14:		Harvest design
(April 14) Week 15	Last week	NO LAB

## Evaluation:

Mid-term	25%
Assignments and quizzes	15%
Labs	20%
Presentation	10%
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 school 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.