

GRANDE PRAIRIE REGIONAL COLLEGE
DEPARTMENT OF SCIENCE AND TECHNOLOGY

SEP. 10 2002

Bachelor of Applied Forest Resource Management

Forest Engineering Principles: FO3010

Calendar Description:

Design, layout and construction of forest roads and bridges, cutblocks, and logging operations. Environmental aspects of alteration of the forest environment. Hydraulics, power units, power transmission, equipment design and application. Compliance with regulations and constraints on private, industrial, and Crown lands. Maintenance and restoration following operations.

Instructor: Jennifer Hacking
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Lectures: Mondays and Wednesdays 10:00 – 11:20

Labs: TBA

Textbooks: BCIT, Forest Road Construction, Forest Engineering Technology Program, 2001.
BCIT, Bridge Maintenance, Forest Engineering Technology Program, 2001.
BCIT, Bridge Fundamentals, Forest Engineering Technology Program, 1998.
BCIT, Culvert Maintenance, Forest Engineering Technology Program, 2000.

Course evaluation:

Components of the course that will be evaluated for grading purposes will include mid-term and final exams, a project, and five lab reports.

Lab reports	30%
Project	20%
Mid-term exam	20%
Final exam	30%

Lecture Schedule

Week 1	Sept 5	Course introduction
Week 2	Sept 10	Surveying instruments
Week 3	Sept 17	Surveying instruments – road layout
Week 4	Sept 24	Surveying instruments – road construction and maintenance
Week 5	Oct 1	Road construction and maintenance
Week 6	Oct 8	Road construction and maintenance/Mid-term exam
Week 7	Oct 15	Calculation of costs for road construction
Week 8	Oct 22	Calculation of costs for road construction
Week 9	Oct 29	Design and layout of cutblocks and logging operations
Week 10	Nov 5	Design and layout of cutblocks and logging operations
Week 11	Nov 12	Regulations affecting engineering/logging operations
Week 12	Nov 19	Regulations affecting engineering/logging operations
Week 13	Nov 26	Equipment manufacture
Week 14	Dec 3	Review

Tentative Lab Schedule – depending on availability of outside personnel

Week 1	Sept 5	
Week 2	Sept 10	Use of surveying instruments (I)
Week 3	Sept 17	Use of surveying instruments (II)
Week 4	Sept 24	Restoration of roads following operations
Week 5	Oct 1	
Week 6	Oct 8	Road maintenance and bridges (2)
Week 7	Oct 15	Road construction and maintenance costs
Week 8	Oct 22	
Week 9	Oct 29	Cutblock layout (2)
Week 10	Nov 5	
Week 11	Nov 12	Forest audit (2)
Week 12	Nov 19	
Week 13	Nov 26	Equipment manufacture
Week 14	Dec 3	Presentations

Note: Labs with a (2) noted are all-day labs, usually in the field.