F.97

GRANDE PRAIRIE REGIONAL COLLEGE

DEPARTMENT OF SCIENCE AND TECHNOLOGY

Bachelor of Applied Forest Resource Management

ECOSYSTEM MANAGEMENT: FO3670

approach to

Transfer status: Transfers to Athabasca University as SCIE 3XX
Transfers to Augustana University College as BIO 3xx or GEO3xx

Pre-requisite: FO3130 (Silviculture)

Calender Description:
Defining the concept of ecosystem management. Historical evolution of forest management. The Alberta Conservation Strategy provides the impetus for Ecosystem Management in Albert; wildlife concerns; watershed management; other values of the forest. Application of Ecosystem Management; variable retention harvesting and restoration silviculture versus traditional silviculture systems.

Instructor: Albert Sproule Ph.D.
Office: C203
Phone: 539-2061
Email: sproule@gprc.ab.ca

Lectures: Monday, Wednesday and Friday 10.00 - 10.50 E305

Guest lecturers: Adam James, Alta Fish and Wildlife - caribou habitat
Grant Williamson, Ainsworth - industry approach to ecosystem management

Recommended Textbook:
Creating a Forest for the 21st Century 1996. Edited by Kathryn A. Kohm and Jerry F. Franklin. Island Press, Washington, D.C. 475 p.

Textbooks Available in the Library:
Fire's Effects on Ecosystems. 1998. DeBano, L.F., Neary, D.G. and P.F. Ffoliott. Published by John Wiley & Sons, Inc.
Forest Ecology. 1996. J.P. Kimmins. Published by Prentice Hall.
Forest Ecosystems: Concept and Management. 1985. Waring, R.H. and W.H. Schlesinger. Published by Academic Press.
Forest Ecosystems. 1994. D. Terry. University of John Hopkins Press,.

Scientific Journals and Periodicals Available in the Library
Canadian Journal of Forest Research
Forestry Chronicle
Northern Journal of Applied Forestry
Silviculture
Proceedings from a number of ecosystem symposia are also available in the library.

Lecture Schedule

What is an ecosystem?	3 lectures
- structural components	
- nature of systems	
- landscape and global ecology	
Evolution of ecosystem management in Alberta	4 lectures
- The Alberta Forest Conservation Strategy	
- strategies	
- principles	
Wildlife conservation and management	3 lecture
- utilization of wildlife	
- consumptive vs non-consumptive activities	1 lecture
- relation between wildlife and habitat	1 lecture
The ecosystem approach	
- major wildlife habitats	4 lectures
- variable retention harvesting systems	1 lecture
- long rotations	1 lecture
- lifeboating	
- design of a variable retention system	3 lectures
- aggregated vs dispersed retention	
- management issues in variable retention	4 lectures
- wind, fire, forest health	
- evidence in favour of retention	1 lecture
- difficulties in implementing retention systems	
Fire and ecosystem management	4 lectures
- historical development of policy	
- the role of fire	
- fire dependent ecosystems	
Other types of disturbance	
- wind, flooding, insect and disease	1 lecture
Ecosystem management and enhanced forest management	3 lectures
- discussion of effects of genetic programs, stand tending	

TERM PAPER

A term paper will be assigned within the first two weeks of the term. The paper will be on some aspect(s) of the philosophy or implementation of ecosystem management. The paper is worth 30% of the total term marks and is to be handed in not later than April 1st.

EXAMINATIONS AND MARK ALLOCATION

Mid-term examination	30%
Final examination	40%
Term Paper	30%