



RGEN 1120 Syllabus

Rangeland Ecology and Regenerative Grazing

June 9th - 29th, 2025

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Seminar dates: June 9, 16 & 23

Module Description

Wildlife grazing and beef production utilizes extensive grassland and forested rangelands as an important component of the ranch forage system. It is therefore important to recognize and understand the ecological processes of rangelands and plant communities that comprise them in order to best prescribe grazing practices that sustain them at a consistent capacity into the future. Course components include defining ecosystem processes; describing important rangeland plant communities; outlining plant physiology and grass growth; and introducing monitoring techniques to assess range condition. Students will develop an understanding of the concepts and resources required to apply appropriate grazing practices to both range ecosystems in British Columbia, as well as more intensive, tame pasture lands.

With completion of this module, students will be able to view the landscape to estimate the current condition of a range or pasture unit and estimate carrying capacity, identify any riparian, or invasive weed issues as well as biodiversity values. They will also be able to identify areas where soil health is diminished (often leading to invasive weed issues) and recommend management practices to build soil organic matter.

Learning Objectives

With completion of this module, students will be able to:

1. Explain rangeland ecology principles, and describe the history of grassland and forested rangeland ecosystems.
2. Describe the processes within grass physiology, growth and response to herbivore and other disturbances
3. Identify plant community succession and range condition, and techniques to monitor change.
4. Describe the benefits of management intensive grazing.
5. Identify important native rangeland plant species as well as tame pasture agronomic species

Course Topics

1. Basic rangeland ecological principles of grassland and forested rangeland ecosystems with a focus on British Columbia,
2. Grass physiology, growth and response to herbivory and other disturbances,
3. Plant community succession and range condition,
4. Monitoring techniques used to quantify rangeland plant species abundance, and
5. Taxonomy of important British Columbia rangeland species.
6. Differences between native and tame pastures,
7. How to apply range ecology knowledge to production,
8. Range management principles,
9. Tame pasture agronomic species,
10. Management intensive grazing,
11. Forest grazing and silvopasture,
12. Grazing planning.

Student Evaluation

Schedule	Assignment	Total available marks
Week 1	Assignment 1	5
	Assignment 2	5
	Assignment 3	5
	Assignment 4	10
Week 2	Assignment 5	10
	Assignment 6	5
	Assignment 7	5
	Assignment 8	10
Week 3	Grazing Plan	25
	Plant ID Quiz	5
Participation	Weekly attendance	15

Required Textbooks

Plants of Southern Interior BC – by Parish, Coupe, Lloyd

Capturing Sunlight – by Woody Lane

Thompson Rivers University campuses are on the traditional lands of the Tk'emlúps te Secwépemc (Kamloops campus) and the T'exelc (Williams Lake campus) within Secwépemc'ulucw, the traditional and unceded territory of the Secwépemc peoples. Our region also extends into the territories of the St'át'imc, Nlaka'pamux, Nuxalk, Tsilhqot'in, Dakelh, and Syilx peoples.