OBJECTIVES OF THIS COURSE

1. **To provide first hand experience in grazing land ecology through various ecoregions and to learn about techniques to address education and researchable needs.** Students will become familiar with research needs and objectives in several geographical and climactic areas, techniques used in soil-plant-animal research, forage-livestock ecology, systems that include native and/or introduced forage species and intensive and extensive management. Students will be able to qualify and quantify differences in ecosystems and the resultant effects in forage-livestock systems and agriculture in general. By familiarizing students with different ecosystems, they will be better able to integrate grazing management, watershed management, wildlife issues, and conservation of natural resources.

2. **To provide interactions with professionals active in the multidisciplinary areas of forage-livestock research, teaching, extension, industry, and production.** As a result, students will gain a greater appreciation and knowledge of the interdisciplinary nature of forage-livestock research. The importance of forage-livestock systems as an integral component of agriculture and how they contribute to productive, economically viable, socially acceptable, and sustainable agricultural systems will become evident to students.

TRAVELING INSTRUCTORS

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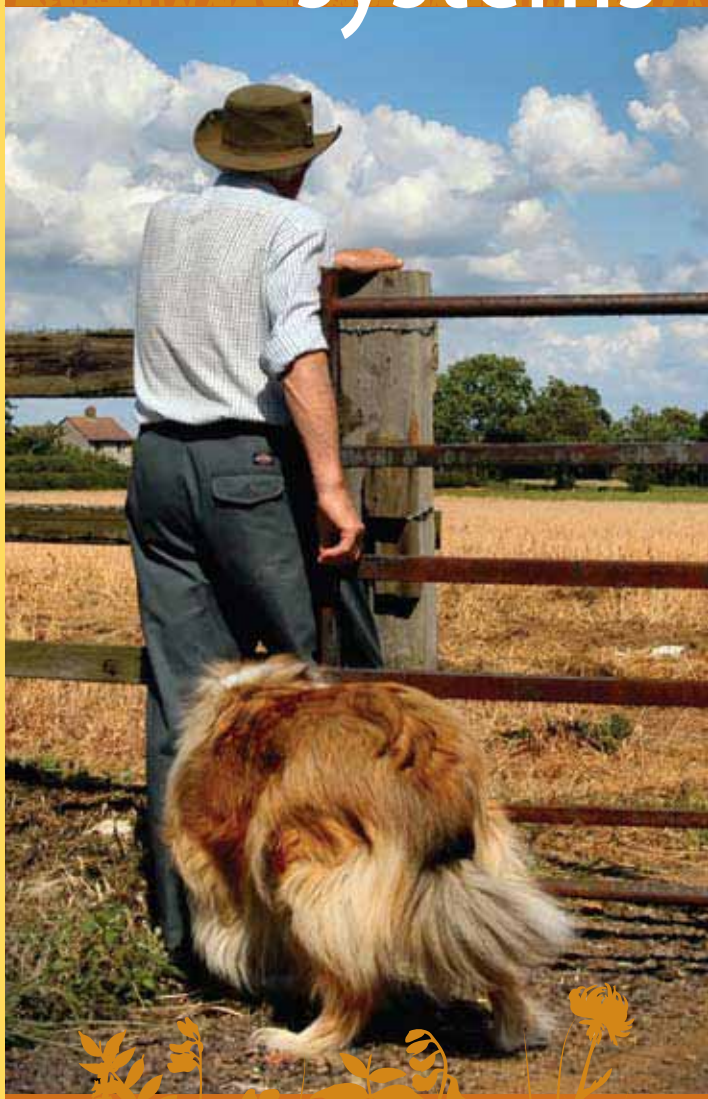
Plus numerous on-site instructors or 'Teachers on the Trail'

ECOLOGY OF grazing lands systems



A MULTI-DISCIPLINARY AND MULTI-UNIVERSITY COURSE

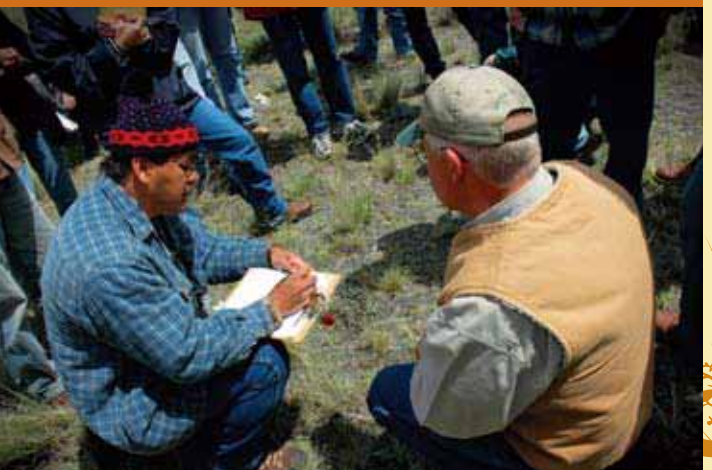
http://www.oznet.ksu.edu/grazinglandecology

COURSE DESCRIPTION

Ecology of Grazing Lands Systems is a field oriented course that takes participants into diverse grazing lands ecosystems across several states and may include other countries. Students learn about:

- The components and functions of grazing lands and how these vary in different ecoregions.
- Research needs, objectives and techniques in soil-plant-animal research.
- Forage-livestock ecology and systems in grazing lands (cropland, pastureland, range land and forestland).
- The role of forages in conservation practices, wildlife habitat, and sustainable agriculture.
- Industries involved with forages and livestock.

This graduate level course includes a two-week field trip open to students who meet the qualifications set by their professor. Graduate credit is received through the students home institution and is credited to their chosen program of study. Enrollment is limited to about 24 students and is taught during the first summer semester (quarter). At least two faculty members will participate in the field trip in its entirety each time that the class is offered. Routes for the field trip will be different each time the course is offered, and students will travel through widely divergent ecosystems. International trips may be offered in some years. A student can enroll for this course more than once, but with no additional credit and pending available space.



REQUIREMENTS

Because Ecology of Grazing Lands Systems is a multi-university course, participating students will come from a number of different institutions with differences in curricula. Therefore, prerequisites must be in subject matter and not in specific courses. **Verification of qualification by the student's major professor and permission of the instructor is required.**

As no textbook is required, selected reading assignments will familiarize students with the sites to be visited as well as with the professionals they will meet. Prior to departing on this trip, students will complete four learning modules using an online "Knowledge Hunt" where they will locate and synthesize specific information relevant to the experiences they will encounter on the trip. It will also enable students to develop relevant questions and responses. Students will also be required to keep a journal articulating the meaning and impact of the trip to them and how they can apply what they've learned to their future careers.

WHY IS THIS UNIQUE?

Forages play a key role in addressing the issues of sustainability of agriculture and the environment. They are central to soil conservation, clean water, wildlife habitat, recreation, and open space, and they provide the major portion of the diets of domesticated ruminants and equines. Students must take an integrated, systems approach to solving problems of agriculture and the environment. This can best be taught by bringing together an array of expertise and providing students exposure to a broad range of sites.

The multi-university nature of this course allows students and faculty from cooperating universities to participate, interact and share among other students and professors from a number of institutions and areas of expertise. This shared experience gives students insight and networking opportunities to industry professionals and other academic programs as well awareness of forages and livestock systems around the country.

For more information visit: **http://www.oznet.ksu.edu/grazinglandecology**