

# GRASSLAND STUDIES (GRAS)

## GRAS 240 Forage Crop and Pasture Management

**Crosslisted with:** PLAS 240, RNGE 240

**Prerequisites:** PLAS 131 or BIOS 101 or LIFE 120

**Description:** Principles basic to the establishment, management, and utilization of forage crops and pastures. Plant identification and selection, seeding, fertilization, irrigation, forage quality and utilization, hay and silage preservation, and grazing management. The role of forages and ranges in developing a sustainable agriculture.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded with Option

**Offered:** FALL/SPR

**Prerequisite for:** PLAS 340, RNGE 340, GRAS 340; PLAS 395A; PLAS 445, AGRO 845, ASCI 451, ASCI 851, RNGE 445, GRAS 445

## GRAS 242 North American Wildland Plants

**Crosslisted with:** PLAS 242, RNGE 242

**Prerequisites:** Permission.

**Notes:** PLAS/RNGE 240 recommended.

**Description:** Identification and description of two-hundred important wildland plants of North America. Characteristics of these plants evaluated in terms of management implications.

**Credit Hours:** 1

**Max credits per semester:** 1

**Max credits per degree:** 4

**Grading Option:** Graded with Option

**Offered:** FALL/SPR

## GRAS 340 Range Management and Improvement

**Crosslisted with:** PLAS 340, RNGE 340

**Prerequisites:** PLAS 240 or NRES 245

**Description:** The principles of range management within the ecosystem framework. Range improvement practices and grazing systems; plant control using biological, chemical and mechanical factors; prescribed burning; range seeding; range fertilization; and the integration of range with other forage resources.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded with Option

**Offered:** SPRING

**Prerequisite for:** PLAS 445, AGRO 845, ASCI 451, ASCI 851, RNGE 445, GRAS 445

## GRAS 398R Research Experiences in Grasslands

**Crosslisted with:** NRES 398R, PLAS 398R

**Description:** Scientific and research training and necessary soft skills for researchers, using grasslands as a study system. Provides individualized opportunities for engagement with scientific methods, which include experiential learning, acquisition and refinement of skills that enhance higher-learning opportunities, and increased marketability for future employment or postgraduate degrees.

**Credit Hours:** 1-3

**Min credits per semester:** 1

**Max credits per semester:** 3

**Max credits per degree:** 5

**Grading Option:** Graded

**Offered:** FALL

**Experiential Learning:** Case Work, Project-Based Learning, Research

## GRAS 440 Great Plains Ecosystem

**Crosslisted with:** PLAS 440, AGRO 840, NRES 840, RNGE 440, NRES 440

**Prerequisites:** Junior standing.

**Description:** Characteristics of Great Plains ecosystems, interrelationships of ecological factors and processes, and their application in the management of grasslands. Interactions of fire, vegetation, grazing animals and wildlife.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded with Option

**Offered:** SPRING

## GRAS 441 Perennial Plant Function, Growth, and Development

**Crosslisted with:** PLAS 441, AGRO 841, HORT 841, RNGE 441

**Prerequisites:** PLAS 325 or equivalent.

**Description:** Principles of crop physiology and developmental morphology in relation to function, growth, development, and survival of perennial forage, range, and turf plants. The relationship of physiology and morphological development on plant use and management.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded with Option

**Offered:** SPRING

## GRAS 442 Wildland Plants

**Crosslisted with:** PLAS 442, AGRO 842, NRES 842, RNGE 442, NRES 442

**Prerequisites:** Junior standing.

**Notes:** PLAS 131 or LIFE 121 and 121L or equivalent recommended

**Description:** Wildland plants that are important to grassland and shrubland ecosystem management and production. Distribution, utilization, classification, identification (including identification by vegetative parts), uses by Native Americans, and recognition of grasses, forbs, shrubs, exotic and wetland plants.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded with Option

**Offered:** FALL

## GRAS 444 Ecosystem Monitoring and Assessment

**Crosslisted with:** PLAS 444, AGRO 844, NRES 844, RNGE 444, NRES 444

**Prerequisites:** Junior standing.

**Notes:** NRES 220 or equivalent, recommended.

**Description:** Measurement and monitoring of the important vegetation and environmental factors used to develop management guidelines in grasslands, savannas, woodlands, and wetlands. Emphasis on using ecosystem monitoring protocols for assessment of wildlife habitat, fuels management for wild-land fire, livestock production, and watershed function. Requires field sampling and travel to local field sites.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded with Option

**Offered:** FALL

**GRAS 445 Livestock Management on Range and Pasture**

**Crosslisted with:** PLAS 445, AGRO 845, ASCI 451, ASCI 851, RNGE 445

**Prerequisites:** ASCI 250 and PLAS 240 or PLAS 340

**Notes:** AECN 201 recommended. Capstone course. All students required to participate in a one-week field trip in central or western Nebraska prior to beginning of fall semester. Therefore, students must notify instructor at time of early registration (Dates are given in class schedule.)

**Description:** Analyzing the plant and animal resources and economic aspects of pasturage. Management of pasture and range for continued high production emphasized.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded with Option

**Offered:** FALL

**ACE:** ACE 10 Integrated Product

**Course and Laboratory Fee:** \$300

**GRAS 490 Internship Experience in Grazing Livestock Systems**

**Prerequisites:** Junior standing, Grazing Livestock Systems major and permission

**Description:** A structured practical experience under the supervision of a professional in grazing livestock systems.

**Credit Hours:** 1-3

**Min credits per semester:** 1

**Max credits per semester:** 3

**Max credits per degree:** 4

**Grading Option:** Graded with Option

**Prerequisite for:** ASCI 482, AECN 482

**GRAS 495 Grasslands Seminar**

**Crosslisted with:** PLAS 495, ENTO 495, NRES 495, RNGE 495, SOIL 495

**Prerequisites:** Junior standing.

**Description:** Topic varies and deals with different aspects of forage and/or range and/or livestock, turf and/or landscape grasses, natural habitats, and wetlands.

**Credit Hours:** 1-2

**Min credits per semester:** 1

**Max credits per semester:** 2

**Max credits per degree:** 4

**Grading Option:** Graded with Option

**GRAS 496 Independent Study**

**Prerequisites:** Permission and advance approval of contract.

**Credit Hours:** 1-5

**Min credits per semester:** 1

**Max credits per semester:** 5

**Max credits per degree:** 5

**Grading Option:** Graded with Option