Range Science (RNGE)

RNGE 240 Forage Crop and Pasture Management
Crosslisted with: AGRO 240, GRAS 240
Prerequisites: AGRO/HORT 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, seedling, 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
Format: LEC
Offered: FALL/SPR
Prerequisite for: AGRO 340, RNGE 340, GRAS 340; AGRO 445, AGRO 845, ASCI 451, ASCI 851, RNGE 445

RNGE 242 North American Wildland Plants
Crosslisted with: AGRO 242, HORT 242, GRAS 242
Prerequisites: Permission.
Notes: AGRO/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
Format: LEC
Offered: FALL/SPR

RNGE 295 Internship in Agronomy
Crosslisted with: AGRO 295, SOIL 295
Prerequisites: Sophomore standing and completion of internship approval form. The internship proposal is subject to approval by the department.
Description: Participation in agronomic applications and in agronomy-related areas of agribusiness; agronomic research in lab, greenhouse, or field; participation in farming practices other than those in which the student has had previous experience; or preparation of teaching materials.
Credit Hours: 1-3
Min credits per semester: 1
Max credits per semester: 3
Max credits per degree: 5
Format: FLD

RNGE 340 Range Management and Improvement
Crosslisted with: AGRO 340, GRAS 340
Prerequisites: AGRO 240.
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 seedling; range fertilization; and the integration of range with other forage resources.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Offered: SPRING
Prerequisite for: AGRO 445, AGRO 845, ASCI 451, ASCI 851, RNGE 445

RNGE 440 Great Plains Ecosystem
Crosslisted with: AGRO 440, AGRO 840, NRES 840, NRES 440, GRAS 440
Prerequisites: Junior standing.
Notes: BIOS 101 and 101L, or equivalent, recommended.
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
Format: LEC
Offered: SPRING

RNGE 441 Perennial Plant Function, Growth, and Development
Crosslisted with: AGRO 441, AGRO 841, HORT 441, HORT 841, GRAS 441
Prerequisites: AGRO 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
Format: LEC
Offered: SPRING

RNGE 442 Wildland Plants
Crosslisted with: AGRO 442, AGRO 842, NRES 842, NRES 442, GRAS 442
Prerequisites: Junior standing.
Notes: BIOS 101 and 101L, 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
Format: LEC
Offered: SPRING

RNGE 444 Ecosystem Monitoring and Assessment
Crosslisted with: AGRO 444, AGRO 844, NRES 844, NRES 444, GRAS 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
Format: LEC
Offered: FALL

RNGE 445 Range Science
Crosslisted with: AGRO 445, AGRO 845, NRES 445, NRES 845, GRAS 445
Prerequisites: Junior standing.
Notes: AGRO 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
Format: LEC
Offered: SPRING

RNGE 840 Great Plains Ecosystem
Crosslisted with: AGRO 840, AGRO 840, NRES 840, NRES 440, GRAS 440
Prerequisites: Junior standing.
Notes: BIOS 101 and 101L, or equivalent, recommended.
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
Format: LEC
Offered: SPRING

RNGE 841 Perennial Plant Function, Growth, and Development
Crosslisted with: AGRO 841, AGRO 841, HORT 441, HORT 841, GRAS 441
Prerequisites: AGRO 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
Format: LEC
Offered: SPRING

RNGE 842 Wildland Plants
Crosslisted with: AGRO 842, AGRO 842, NRES 842, NRES 442, GRAS 442
Prerequisites: Junior standing.
Notes: BIOS 101 and 101L, 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
Format: LEC
Offered: SPRING

RNGE 844 Ecosystem Monitoring and Assessment
Crosslisted with: AGRO 844, AGRO 844, NRES 844, NRES 444, GRAS 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
Format: LEC
Offered: FALL
RNGE 445 Livestock Management on Range and Pasture
Crosslisted with: AGRO 445, AGRO 845, ASCI 451, ASCI 851
Prerequisites: ASCI 250 and AGRO 240 or 340.
Notes: AECN 201 recommended.
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
Format: LEC
ACE: ACE 10 Integrated Product

RNGE 495 Grasslands Seminar
Crosslisted with: AGRO 495, ENTO 495, GRAS 495, HORT 495, NRES 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
Format: LEC

RNGE 496 Independent Study
Crosslisted with: AGRO 496, AGRO 896, SOIL 496
Credit Hours: 1-6
Min credits per semester: 1
Max credits per semester: 6
Max credits per degree: 12
Format: IND

RNGE 499H Honors Thesis
Crosslisted with: AGRO 499H, SOIL 499H
Prerequisites: Admission to the University Honors Program and permission.
Notes: AGRI 299H recommended.
Description: Conduct a scholarly research project and write a University Honors Program or undergraduate thesis.
Credit Hours: 3-6
Min credits per semester: 3
Max credits per semester: 6
Max credits per degree: 6
Format: IND