## Rangeland Ecosystem Science-RS (RS)

### Courses

**RS 300  Rangeland Conservation and Stewardship  Credits: 3 (3-0-0)**

**Course Description:** Conservation and management of rangeland-ecosystem values using sustainable practices.

**Prerequisite:** BZ 120 or LIFE 102.

**Registration Information:** Sections may be offered: Online.

**Term Offered:** Fall.

**Grade Mode:** Traditional.

**Special Course Fee:** No.

**RS 310  Rangeland and Forest Ecogeography  Credits: 3 (2-2-0)**

**Also Offered As:** F 310.

**Course Description:** Distribution of wildland plant communities and identification of important grasses, forbs, shrubs, and trees common to North America.

**Prerequisite:** BZ 101 or BZ 104 or BZ 110 or BZ 120 or LIFE 102.

**Registration Information:** Must have concurrent registration in RS 312. Must register for lecture and laboratory. Credit not allowed for both RS 310 and F 310.

**Terms Offered:** Fall, Spring.

**Grade Mode:** Traditional.

**Special Course Fee:** No.

**RS 312  Rangeland Plant Identification Lab  Credit: 1 (0-2-0)**

**Course Description:** Identification of characteristic grasses, forbs, and shrubs common to North American rangelands.

**Prerequisite:** RS 310, may be taken concurrently.

**Term Offered:** Fall.

**Grade Mode:** Traditional.

**Special Course Fee:** No.

**RS 329  Rangeland Assessment  Credit: 1 (0-3-0)**

**Course Description:** Five-day intensive field-based course on principles of rangeland ecosystem assessment.

**Prerequisites:** (F 310 or RS 310) and (RS 300 and SOCR 240).

**Term Offered:** Summer.

**Grade Mode:** Traditional.

**Special Course Fee:** Yes.

**RS 331  Wildland Plants and Plant Communities  Credits: 3 (2-2-0)**

**Course Description:** Distribution of non-forested wildland plant communities and important plant species in the western United States.

**Prerequisite:** BZ 223 or NR 220.

**Registration Information:** Must register for lecture and laboratory. Required field trips. Sections may be offered: Online.

**Term Offered:** Fall.

**Grade Mode:** Traditional.

**Special Course Fee:** No.

**RS 351  Wildland Ecosystems in a Changing World  Credits: 3 (2-2-0)**

**Course Description:** Understanding and conserving non-forested wildland ecosystems, processes, and services under changing environmental conditions.

**Prerequisites:** (LIFE 320 or LAND 220 or LIFE 220) and (SOCR 240).

**Registration Information:** Must register for lecture and laboratory. Required field trips.

**Term Offered:** Fall.

**Grade Mode:** Traditional.

**Special Course Fee:** No.

**RS 400  Rangeland Improvements  Credits: 2 (2-0-0)**

**Course Description:** Improvement of rangelands through biological and cultural methods; management of improved rangelands.

**Prerequisite:** RS 300 or SOCR 320.

**Term Offered:** Fall.

**Grade Mode:** Traditional.

**Special Course Fee:** No.

**RS 420  Grass Taxonomy  Credits: 3 (1-4-0)**

**Course Description:** Anatomy, morphology, and identification of grasses.

**Prerequisite:** BZ 223.

**Registration Information:** Must register for lecture and laboratory.

**Term Offered:** Spring.

**Grade Mode:** Traditional.

**Special Course Fee:** No.

**RS 432  Rangeland Measurements and Monitoring  Credits: 2 (1-3-0)**

**Course Description:** Vegetation sampling and field measurements emphasizing applications for monitoring and adaptive management.

**Prerequisites:** (NR 220 and RS 300, may be taken concurrently) and (STAT 201 or STAT 301 or STAT 307).

**Term Offered:** Fall.

**Grade Mode:** Traditional.

**Special Course Fee:** Yes.

**RS 452  Rangeland Herbivore Ecology and Management  Credits: 3 (3-0-0)**

**Course Description:** Ecology and management of large ungulate herbivores including consumer functions at organismal and ecosystem levels.

**Prerequisites:** (RS 300) and (LAND 220 or LIFE 220 or LIFE 320).

**Registration Information:** Voluntary field trips.

**Term Offered:** Fall, Spring.

**Grade Mode:** Traditional.

**Special Course Fee:** No.

**RS 470  Rangeland Economics and Analysis  Credits: 2 (2-0-0)**

**Course Description:** Economics of rangeland resource use; analytical techniques for allocation of rangeland resources.

**Prerequisites:** (AREC 202 or ECON 202) and (RS 300).

**Term Offered:** Fall.

**Grade Mode:** Traditional.

**Special Course Fee:** No.
RS 471  Rangeland Planning and Grazing Management  Credits: 2 (2-0-0)
Course Description: Definition of grazing management, grazing systems. Synthesis of animal, plant responses to grazing management. Structure, function of rangeland planning.
Prerequisite: RS 300 or SOCR 320.
Term Offered: Fall.
Grade Mode: Traditional.
Special Course Fee: No.

RS 472  Rangeland Ecosystem Planning  Credits: 4 (1-6-0)
Course Description: Range allotment, ranch, and restoration planning.
Prerequisite: RS 471.
Registration Information: Must register for lecture and laboratory. Required field trips.
Term Offered: Spring.
Grade Mode: Traditional.
Special Course Fee: No.

RS 478  Ecological Restoration  Credits: 3 (3-0-0)
Course Description: Analysis of environmental factors influencing restoration of disturbed lands and practices for successful restoration of disturbed ecosystems.
Prerequisites: (BZ 450 or LAND 220 or LIFE 220 or LIFE 320) and (SOCR 240).
Registration Information: Credit not allowed for both RS 478 and NR 678.
Term Offered: Spring.
Grade Mode: Traditional.
Special Course Fee: No.

RS 495  Independent Study-Rangeland Ecosystems  Credits: Var[1-18]
Course Description: 
Prerequisite: None.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.

RS 496  Group Study-Rangeland Ecosystem  Credits: Var[1-18]
Course Description: 
Prerequisite: None.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.

RS 500  Advanced Rangeland Management  Credits: 3 (3-0-0)
Course Description: Rangeland management concepts.
Prerequisite: LAND 220 or LIFE 320 or NR 220 or LIFE 220.
Registration Information: Sections may be offered: Online.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Traditional.
Special Course Fee: No.

RS 501  Range Habitat Manipulation  Credits: 3 (3-0-0)
Course Description: Improvement of range habitats and effects on ecosystem components.
Prerequisite: RS 300 or SOCR 320.
Term Offered: Fall.
Grade Mode: Traditional.
Special Course Fee: No.

RS 520  Range Issues and Policy  Credits: 2 (2-0-0)
Course Description: Explores and evaluates current issues and policies concerning range use.
Prerequisite: RS 300 or SOCR 320.
Term Offered: Fall (even years).
Grade Mode: Traditional.
Special Course Fee: No.

RS 531  World Grassland Ecogeography  Credits: 3 (2-3-0)
Course Description: Distribution, climate, and structure of the world's major grasslands with emphasis on North America.
Prerequisite: BZ 223.
Registration Information: Must register for lecture and laboratory. Required field trips. Sections may be offered: Online.
Term Offered: Fall.
Grade Mode: Traditional.
Special Course Fee: No.

RS 532  Rangeland Ecosystem Sampling  Credits: 3 (1-3-1)
Course Description: Measurement, analysis techniques for rangeland vegetation. Applications to management emphasized.
Prerequisites: (STAT 301) and (LAND 220 or LIFE 320 or NR 220 or LIFE 220).
Registration Information: Credit not allowed for both RS 532 and RS 432. Required field trips.
Term Offered: Fall.
Grade Mode: Traditional.
Special Course Fee: Yes.

RS 552  Range Animal Production and Management  Credits: 4 (3-0-1)
Course Description: Biological and ecological basis for production of meat from rangelands.
Prerequisite: LAND 220 or LIFE 320 or NR 220 or LIFE 220.
Registration Information: Must register for lecture and recitation. Sections may be offered: Online.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Traditional.
Special Course Fee: No.

RS 565  Riparian Ecology and Management  Credits: 3 (2-2-0)
Course Description: Analysis of interactions among biotic and abiotic processes as relates to the ecology and management of riparian systems, emphasizing case studies.
Prerequisite: LAND 220 or LIFE 220 or LIFE 320.
Registration Information: Must register for lecture and laboratory. Required field trips.
Term Offered: Spring.
Grade Mode: Traditional.
Special Course Fee: No.

RS 630  Ecology of Grasslands and Shrublands  Credits: 3 (3-0-0)
Course Description: Distributions and climatic controls on grassland and shrubland plant communities.
Prerequisite: NR 565.
Restriction: Must be a: Graduate, Professional.
Term Offered: Spring.
Grade Mode: Traditional.
Special Course Fee: No.
RS 640  Vegetation-Environment Analysis  Credits: 3 (3-0-0)
Course Description: Multivariate analyses and ecological interpretations of vegetation communities.
Prerequisite: STAT 301.
Restriction: Must be a: Graduate, Professional.
Term Offered: Fall (even years).
Grade Mode: Traditional.
Special Course Fee: No.

RS 651  Primary Production and Decomposition  Credits: 4 (3-2-0)
Course Description: Energy transformations within primary producer compartment; dissipation of ecosystem biomass by decomposers, mineralization.
Prerequisites: BZ 440 and SOCR 100 to 481 - at least 1 course.
Restriction: Must be a: Graduate, Professional.
Registration Information: Must register for lecture and laboratory. Sections may be offered: Online.
Term Offered: Fall.
Grade Mode: Traditional.
Special Course Fee: No.

RS 693  Seminar  Credit: 1 (0-0-1)
Course Description:
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.

RS 695  Independent Study-Rangeland Ecosystem  Credits: Var[1-18]
Course Description:
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.

RS 696  Group Study-Rangeland Ecosystem  Credits: Var[1-18]
Course Description:
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.

RS 698  Research  Credits: Var[1-18]
Course Description:
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.

RS 699  Thesis  Credits: Var[1-18]
Course Description:
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.

RS 793  Seminar  Credit: 1 (0-0-1)
Course Description:
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.

RS 795  Independent Study-Rangeland Ecosystem  Credits: Var[1-18]
Course Description:
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.

RS 798  Research  Credits: Var[1-18]
Course Description:
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.

RS 799  Dissertation  Credits: Var[1-18]
Course Description:
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.