

**SOUTHEAST COMMUNITY COLLEGE**  
**COURSE SYLLABUS**  
**TRAN-WELDING-AG**  
**Livestock Management & Production Program**  
**Revision Date: August 2023**  
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**I. CATALOG DESCRIPTION**

**Course Number:** AGRI 2240

**Course Title** Range Management

**Prerequisite(s):** AGRI 1131 and AGRI 1141

**Recommended:**

**Catalog Description:** Study of efficient utilization of range resources. Consolidates the range ecosystem with the utilization systems employed in modern livestock based agriculture. Includes study of production, harvesting, and utilization of forage crops to facilitate a year-round forage plan for livestock.

**Credit Hours:** 3.0

**Class Hours:** 38

**Lab Hours:** 23

**Total Contact Hours:** Total of Class + Lab Hours 61

**II. COURSE OBJECTIVES:** *Course will:*

1. Introduce students to the relationship between soils, plants, and range sites incorporating plant physiology and response.
2. Introduce students to identifying range sites and plants in planning resource utilization.
3. Introduce students to management tools and objectives for range sites.
4. Introduce students to selecting range and forage plants in planning resource utilization.
5. Introduce students to computing livestock stocking rates and harvested forage requirements based on range sites and harvested forage.
6. Introduce students to the application of range and forage management at the SCC land lab.

**III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:**

**A. STUDENT LEARNING OUTCOMES:** *Student will be able to:*

1. Demonstrate the ability to identify range plants and sites
  - a. Identify the sites from soil maps
  - b. Identify plants and relate them to specific sites
  - c. Determine plant physiology and expected response
2. Demonstrate planning and utilization for specific range sites
  - a. Identify characteristics of a specific site
  - b. Determine strengths and weaknesses of sites
  - c. Design a plan for SCC land lab sites
3. Demonstrate types and uses of management tools

- a. Identify management tools and applications to range sites
- b. Operate equipment used to apply management tools
- c. Incorporate management tools into a range plan
- 4. Demonstrate computations of carrying capacity and available forage
  - a. Determine available forage, both standing and harvested
  - b. Compare available forage and livestock
  - c. Utilize analysis to balance a range resource plan

## **B. GENERAL EDUCATION LEARNING OUTCOMES**

### **GELO #6: Career and Life Skills**

At the heart of the SCC Core is a philosophy that our graduates will leave SCC with both a well-rounded, broad-based education and a set of skills that will set them up for success and fulfillment in their personal and professional lives.

#### **Outcomes:**

- 1) Employ effective interpersonal and intrapersonal communication skills.

## **IV. CONTENT/TOPICAL OUTLINE (*course outline may provide more detailed information*)**

- a. Range history
- b. Plant ID
- c. Range Condition
- d. Grazing Management & Tools
- e. Forage feed values
- f. Harvested feeds

## **V. INSTRUCTIONAL MATERIALS**

### **A. Suggested Text(s):** NEBRASKA RANGE AND PASTURE GRASSES – EC 85-170

Stubbendieck, Nicholas, and Roberts; NEBRASKA RANGE AND PASTURE FORBS AND SHRUBS –EC 89-118 Stubbendieck, Nichols, and Butterfield

### **B. Other Resources:**

Leather gloves, pliers, calculator, notebook, other reading as assigned

## **VI. METHODS OF PRESENTATION/INSTRUCTION**

Methods of presentation typically include a combination of the following:

- a. Lecture with classroom discussion
- b. Demonstration
- c. Applied lab exercises
- d. Group projects
- e. Video
- f. Research

## **VII. METHODS OF EVALUATION**

Methods of evaluation typically include a combination of the following:

- A. Quizzes, tests, and exams
- B. Skills tasks
- C. Research projects-plans
- D. Computer application
- E. Daily evaluation

### **SCC STANDARD GRADING SCALE POLICY:**

<b>A+ 95-100</b>	<b>C+ 75-79</b>
<b>A 90-94</b>	<b>C 70-74</b>
<b>B+ 85-89</b>	<b>D+ 65-69</b>
<b>B 80-84</b>	<b>D 60-64</b>
	<b>F Below 60</b>

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