

**Course Objectives/Course Outline**  
**Spokane Community College**

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**Course Title:** Soil Management

**Prefix and Course Number:** AGHRT 219

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**Course Learning Outcomes:**

**By the end of this course, a student should be able to:**

- Identify nutrient deficiency symptoms on various plants.
- Take soil samples and understand sampling results.
- Make appropriate fertilizer recommendations for a variety of soils, plants, and situations.
- Describe soil conditions and appropriate management methods.
- Explain various soil erosion control methods.

**Course Outline**

- I. Review of Basic Soils
  - A. Physical Properties of Soil
  - B. Soil Water
  - C. Life in Soil
  - D. Soil Fertility and pH
- II. Plant Nutrition
  - A. Primary Macronutrients
  - B. Secondary Macronutrients
  - C. Micronutrients
  - D. Balanced Nutrition
- III. Soil Sampling and Testing
  - A. Soil Sampling
  - B. Soil Testing
  - C. Tissue Testing
- IV. Fertilizers
  - A. Fertilizer Materials
  - B. Mixed and Mixing Fertilizers
  - C. Selecting and Applying Fertilizers
  - D. Organic Amendment Options
- V. Soil Management Systems
  - A. Tillage Systems
  - B. Cropping Systems
  - C. Sustainable Agriculture
  - D. Fruit and Vegetable Culture
  - E. Nursery Culture
- VI. Soil Conservation and Problem Management
  - A. Water Erosion
  - B. Wind Erosion
  - C. Urban Erosion
  - D. Other Problems with Urban Soils