**Advanced Soils and Plant Nutrition**

**Course Outcome Summary**

**Course Information:**

**Organization:** Minnesota State  
**Developers:** FBM Curriculum Review Team  
**Course Number:** SCMT 2131  
**Type of Instruction:** Individualized  
**Total Credits:** 2.0  
**Total Hours of Instruction:** 2.0

**Description:**

This course identifies the nutrient needs for various specialty crops and alternative methods of achieving and maintaining desired nutrient levels. Students will learn how CEC and pH influence soil fertility and which nutrients are best added with foliar feeding.

**Course Outcomes:**

1. Explain best practices for fertilization of different soil texture types
2. Interpret the cation exchange capacity to develop fertilizer recommendations
3. Explain how soil pH affects nutrient availability
4. Identify the nutrients and application for foliar feeding
5. Identify the relationship of soil organic matter levels to soil fertility
6. Discuss the interaction of soil mineral elements