



## AGR 214: Sustainable Agriculture

This course explores the principles and practices of sustainable agriculture for small organic farms and gardens. Topics include sustainable agriculture principles and practices, economics, soil science, conservation, tillage, and fertility, composting, cover crops, crop rotation, plant biology, weeds, pest and disease control. Field trips and community-based learning may occur during class meetings. Gen. Ed. Competencies Met: Scientific Reasoning and Discovery. Instructional Support Fee applies.

### Course Student Learning Outcomes

1. Apply the scientific method to issues of sustainable agriculture. 2. Examine plant nutrient deficiencies and their remedies. 3. Compare and contrast industrial vs. organic agriculture practices and impacts. 4. Execute all aspects of crop preparation. 5. Identify principles and practices of soil science and soil conservation. 6. Execute soil fertility techniques including composting, cover crops, crop rotations, and fertilization. 7. Identify common agricultural pests to apply integrated pest management techniques. 8. Identify plant families to manage common agricultural pests and diseases in those families. 9. Explain diverse weed management techniques and practices. 10. Appraise various business practices in farm management and marketing.

**Credits:** 4

**Program:** Sustainable Agriculture