

# SUSTAINABLE AGRICULTURE (SUSAG)

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Courses primarily for graduate students, open to qualified undergraduates:

## **SUSAG 5090: Agroecosystems Analysis**

(Cross-listed with AGRON 5090/ SOC 5090).

Credits: 4. Contact Hours: Lecture 3, Laboratory 4.

Experiential, interdisciplinary examination of Midwestern agricultural and food systems, emphasizing both field visits and classroom activities.

Focus on understanding multiple elements, perspectives (agronomic, economic, ecological, social, etc.), and scales of operation. (Typically Offered: Fall)

## **SUSAG 5150: Integrated Crop and Livestock Production Systems**

(Cross-listed with ABE 5150/ AGRON 5150/ ANS 5150).

Credits: 3. Contact Hours: Lecture 3.

*Prereq:* SUSAG 5090 or Graduate Classification

Methods to maintain productivity and minimize the negative ecological effects of agricultural systems by understanding nutrient cycles, managing manure and crop residue, and utilizing multispecies interactions. Crop and livestock production within landscapes and watersheds is also considered. Course includes a significant field component, with student teams analyzing Iowa farms. Offered odd-numbered years. (Typically Offered: Fall)

## **SUSAG 5300: Ecologically Based Pest Management Strategies**

(Cross-listed with AGRON 5300/ ENT 5300/ PLP 5300).

Credits: 3. Contact Hours: Lecture 3.

Durable, least-toxic strategies for managing weeds, pathogens, and insect pests, with emphasis on underlying ecological processes. Offered even-numbered years. (Typically Offered: Fall)

## **SUSAG 5440: Sociology of Food and Agricultural Systems**

(Dual-listed with SOC 4440). (Cross-listed with SOC 5440).

Credits: 3. Contact Hours: Lecture 3.

Social organization of food and fiber production, processing, and distribution systems. Sociological comparison of conventional and alternative production systems; gender roles in agriculture and food systems; local, national and global food systems; perspectives on food and agricultural research and policy.

## **SUSAG 5460: Strategies for Diversified Food and Farming Systems**

(Cross-listed with AGRON 5460/ HORT 5460).

Credits: 3. Contact Hours: Lecture 3.

Project-focused engagement in food and farming systems using tools and perspectives drawn from multiple disciplines. Includes a field component. Offered odd-numbered years. (Typically Offered: Spring)

## **SUSAG 5490: Sociology of the Environment**

(Cross-listed with SOC 5490).

Credits: 3. Contact Hours: Lecture 3.

Social causes and social consequences of environmental problems. Interrelationship between social inequality and environmental inequality. Social construction and social experience of the environment. Contemporary developments in the social theory of the environment. International and domestic implications.

## **SUSAG 5710: Agroforestry Systems**

(Dual-listed with NREM 4710/ SUSAG 4710). (Cross-listed with NREM 5710).

Credits: 3. Contact Hours: Lecture 3.

Concepts of sustainable land use, agroecological dynamics, and component interactions of agroforestry systems. Agroforestry systems in temperate and tropical regions. Design and evaluation techniques for agroforestry systems. Ecological, socioeconomic and political aspects of agroforestry. Offered even-numbered years. Meets International Perspectives Requirement. (Typically Offered: Spring)

## **SUSAG 5840: Organic Agricultural Theory and Practice**

(Dual-listed with AGRON 4840/ HORT 4840/ SUSAG 4840). (Cross-listed with HORT 5840/ AGRON 5840).

Credits: 3. Contact Hours: Lecture 3.

Understanding of the historical origins and ecological theories underpinning the practices involved in organic agriculture. Interdisciplinary examination of crop and livestock production and socio-economic processes and policies in organic agriculture from researcher and producer perspectives. Offered odd-numbered years. (Typically Offered: Spring)

## **SUSAG 5900: Special Topics**

Credits: 1-3. Repeatable.

*Prereq:* Instructor Permission for Course

For students wishing to conduct in-depth study of a particular topic in sustainable agriculture. (Typically Offered: Fall, Spring, Summer)

## **SUSAG 5990: Creative Component**

Credits: 1-30. Repeatable.

*Prereq:* Instructor Permission for Course

Pre-enrollment contract required. For MS students pursuing the non-thesis degree option. Final product is a creative component. (Typically Offered: Fall, Spring, Summer)

**Courses for graduate students:**

**SUSAG 6000: Sustainable Agriculture Colloquium**

Credits: 1. Contact Hours: Lecture 1.

Repeatable.

Weekly seminar for graduate students in the Sustainable Agriculture program. (Typically Offered: Fall, Spring)

**SUSAG 6100: Foundations of Sustainable Agriculture**

(Cross-listed with ABE 6100/ AGRON 6100/ ANTHR 6100/ SOC 6100).

Credits: 3. Contact Hours: Lecture 3.

Historical, biophysical, socioeconomic, and ethical dimensions of agricultural sustainability. Strategies for evaluating existing and emerging agricultural systems in terms of the core concepts of sustainability and their theoretical contexts. (Typically Offered: Fall)

**SUSAG 6990: Research**

Credits: 1-30. Repeatable.

*Prereq: Instructor Permission for Course*

MS and PhD thesis and dissertation research. (Typically Offered: Fall, Spring, Summer)