

# SUSTAINABLE AGRICULTURE AND FOOD ENVIRONMENT (SAFE)

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**SAFE 5311. Advanced Agriculture & Food Entrepreneurship. 3 Hours.**

This course will examine the initiation of new ventures and growth of existing firms in sustainable agriculture and food production through opportunity recognition, innovation, and change. An emphasis will be placed on developing effective entrepreneurial skills and behaviors, and risk management for start-ups. The preparation of a structured business plan will be required.

**SAFE 5312. Ag Sales and Communication. 3 Hours.**

This course will include the application of economic, marketing, sales, and communication principles to small-scale, intensive agriculture including organics and natural products. A focus will be placed on finding a competitive niche through market segmentation/demography, market research, product choice and differentiation, product positioning and pricing, product outlets and advertising, selling strategies, and the use of current and emerging communication tools.

**SAFE 5313. Agritourism. 3 Hours.**

This course will present the variety and depth of agritourism/ecotourism practiced globally and cover aspects of the economics and organization of agritourism. Topics include agricultural economics, rural development, marketing, rural policy, products and services, and characteristics of agritourists.

**SAFE 5331. Sustainable Energy & Resources. 3 Hours.**

This course will focus on determining energy requirements of various sustainable agricultural operations. Available energy sources will be examined as alternatives for traditional sources provided by fossil fuel. Innovative and emerging on-site production technologies for environmentally sensitive energy will be investigated.

**SAFE 5351. Agricultural Advocacy. 3 Hours.**

This course will examine common issues facing agriculturists in relation to the production of a safe and abundant food supply. A primary focus will include small-scale and direct-marketing producers and the challenges they frequently encounter from industry opponents. Positive and factual promotional strategies will be explored. Social issues, political influences, and topics such as food safety and ethics, biotechnology, genetically modified organisms, and animal welfare will be addressed.

**SAFE 5371. Alternative Ag Enterprises. 3 Hours.**

This course will evaluate various alternative agricultural enterprises available to producers, including an examination of the resources necessary to establish a successful production enterprise. Alternative enterprises to be discussed include forage crops, grains, fruits, vegetables, nuts, horticultural and forestry products, animals, and enterprises that promote education, recreation, and tourism. On-farm processing of products and methods of adding value to products before they leave the farm will also be explored.

**SAFE 5372. Diversified Animal Production. 3 Hours.**

This course examines various animal production systems in relation to alternative animal agriculture and integrated ranch and farm management strategies. Various livestock production and management strategies for small land-owners and urban food production will be studied. Livestock species and breed choices for sustainable production regimens and organic food systems will be explored.

**SAFE 5373. Food Safety and Regulation. 3 Hours.**

This course examines fundamental principles of microbiology as they relate to food safety and product development. Intervention methods to restrict microbiological growth from harvest to plate, including Hazard Analysis Critical Control Point (HACCP) and Sanitation Standard Operating Procedures (SSOP), are evaluated. In addition, state, federal, and international policies, and laws as they relate to the regulation of food production methods, product development, labeling, and product sales for organic, all natural, value-added, and other alternative food production methods are studied.

**SAFE 5391. Soil Ecology. 3 Hours.**

This course examines living organisms in the soil and their influences on each other, plant health, nutrient cycling, soil organic matter, and other important soil properties. The role of soil biodiversity and its importance in agricultural systems will be addressed along with strategies for enhancing soil productivity under human management activities.