

Course Outline for SFP1200 — Farm Ecology

Credits: 3 (3/0/0)

Description: This course will provide an analysis of natural ecosystem sustainability relative to farms and food production. Nutrient cycling, energy flows, biodiversity and population control will be covered.

Prerequisites: (None)

Corequisites: (None)

Competencies:

1. Characterize basic principles of physics and chemistry.
2. Describe basic components of an ecosystem and their relationship to abiotic classification and biological organizational hierarchy.
3. Outline the major biogeochemical cycles present in the ecosphere.
4. Examine the tenets of ecosystem sustainability.
5. Analyze energy flows present in natural and farm ecosystems.
6. Investigate matter cycling relevant to natural and farm ecosystems.
7. Explain the significance of ecosystem biodiversity.
8. Categorize the natural methods of population control employed in nature.
9. Characterize the interactions among soil organisms.
10. Explain the relationship between the biotic and abiotic aspects of the soil environment.
11. Explore various farming systems and their relationships to the environment.
12. Organize farming systems into species, populations, biological communities, and ecosystems.

Goal Areas: (None)