

**DSE-03C : Discipline Specific Elective - 3
Sustainable Agriculture and Food Systems**

**B.A. (Hons.) Humanities & Social Sciences - Semester V
Cluster Innovation Centre, University of Delhi**

Credit Distribution, Eligibility and Pre-requisites of the Course						
Course Title & Code	Credits	Credit Distribution			Eligibility Criteria	Pre-requisite
		L	T	P		
Sustainable Agriculture and Food Systems (UPC: 3123100014)	4	1	0	3	Class XII Pass	Students must be familiar with concepts taught in any course under DSE-02

L = Lecture; T = Tutorial; P = Practical/Practice; UPC = Unique Paper Code

Learning Objectives

- To introduce students to the elements of sustainable agriculture.
- To enable students to explore the economic, social and environmental dimension of sustainable agriculture and food systems.
- To explore the factors affecting ecological balance and sustainable agriculture systems.

Learning Outcomes

- Students will be able to appreciate and foreground the sustainable agricultural practices in the larger public sphere.
- Students will gain a holistic understanding entailing the economic, social and environmental dimensions of sustainable agriculture and food systems.
- Students will be equipped to make informed decisions about their food choices.

Outline of DSE-03C

With a rapidly increasing human population, spurt in urbanization, varying food needs, growing wealth, environment degradation affecting food production, knowledge and discussion about sustainable agriculture and sustainable food systems have become imperative. This course will encourage students to examine the principles and practices of sustainable agriculture and food systems. Principles of agroecology, sustainable livestock management, challenges of sustainable and equitable food systems and policy and regulation related to sustainable agriculture and food systems will also be studied under this course. The course will help students lead campaigns towards making the public more aware about sustainable agriculture and food practices.

Theoretical Component (15 Hours)

Overview of ecosystem, interaction between biotic and abiotic environment components, energy and nutrient cycles, ecosystem services and biodiversity functioning.

Indicative Themes

- Environmentally sustainable, socially just, and economically viable agricultural practices
- Access to healthy and sustainable food for all

Practical component (90 Hours)

- Data collection – methods, tools and techniques
- Data analysis techniques
- Field visits

Readings

1. Odum, E. P., & Barrett, G. W. (2004). *Fundamentals of Ecology*. Brooks Cole.
2. Millennium Ecosystem Assessment. (2005). *Ecosystems and Human Well-being*. Island Press.
3. Cardinale, B. J. et al. (2012). “Biodiversity Loss and Its Impact on Humanity.” *Nature*.
4. Chapin, F. S. et al. (2011). *Principles of Terrestrial Ecosystem Ecology*. Springer.
5. Primack, R. (2020). *Essentials of Conservation Biology*. Sinauer.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.
