

Course Type Lecture Lab
 Practicum Thesis/I.S.
 Measurement and Evaluation A-F S/U P

Selected Topic (if any) Count the accumulated credits for graduation every times
 Count the accumulated credits for graduation one – times only

Abbreviation : SUS AGRI SYST

Prerequisite : None

Course Description

Concept of sustainability in agriculture and development of sustainable agriculture. Transforming sustainable agriculture by smallfarm holders under resource constraints and market competition. Use of agroecological principles to examine properties of various production systems and use of multiple criteria and indicators for assessing farm and community performance. Application of participatory learning approach for sustainable agroecosystem management, and delivery of agricultural services. Issues on up-scaling of sustainable agriculture innovations and integrative research in sustainable agriculture will be discussed.

Course Objectives Students will be able to:

1. explain and broaden perspective of sustainable agriculture and rural livelihoods
2. developed analytical skills in assessing diverse farming systems and to increase student competence in assessing sustainability of agricultural systems.

Course contents	No. lecture hours
1. Concepts of sustainability, agricultural sustainability and sustainable development	3
2. Historical perspective: from Green Revolution forming systems research approach to sustainable agriculture initiatives	3
3. Transforming sustainable agriculture by small farm holders in the globalizing world	3
4. Agro-ecological principles and practices in transformation of sustainable agriculture	3
5. Diversified farming systems and rural livelihoods	3
6. Assessing the sustainability of agricultural systems	3
7. Knowledge-based community management of agro-ecosystems	3
8. Services and facilitation of learning in sustainable agriculture	3

9. Scaling up sustainable agricultural innovations	3
10. Integrative research in sustainable agriculture	3
Total	<u>30</u>