

Course Title	Crop Production Systems			Course Code	BST 12083		
Year	1	Semester	2	Credits	03	Theory (hr)	30
						Practical (hr)	30
						Independent Learning (hr)	10

Aim of the Course:

To provide knowledge on theoretical and applied aspects of cell and tissue culture to apply that in research and commercial production

Intended Learning Outcomes:

After completion of this course, the learner should be able to:

- Describe cropping systems as modified ecosystems, and the specific characteristics compared to natural ecosystems.
- Select the suitable crops for a given agro-ecological condition to achieve the maximum productivity.
- Explain the major agronomic practices, their role in crop production and use them for efficient management of crops to achieve sustainable crop production.
- Describe major cropping systems in Sri Lanka and select appropriate agronomic practices for different crops and cropping systems.

Course Capsule:

Theory
History and development of agricultural production systems; Agro-ecology, Agronomic practices in crop production systems; Aspects of Crop Productivity: Growth, development, and basic physiological processes of cultivated crops, Environmental influences on crop growth and development processes; Major cropping systems in Sri Lanka; Sustainable crop production; Alternatives to conventional cropping systems: protected agriculture, hydroponics, urban and peri-urban farming, organic farming; Integrated crop production systems: Sustainable crop intensification, Integrated crop-livestock farming systems; Challenges in modern crop production systems

Practical
Methods of quantifying plant growth; Familiarization of different cropping systems – field visits and follow up practical reports; Tools for evaluating integrated Systems: Integrated modeling approaches - FALLOW; FALLOW - Case studies; Modeling exercises; Management techniques to minimize stresses and maximize crop yield and quality- Tutorials; Crop Modeling: Concepts; Application in crop production- Students seminar

Assessment:

Continuous assessment: 30%
End semester assessment: 70%