

Course Title	Soil and Plant Nutrient Management			Course Code	BST 21212		
Year	2	Semester	1	Credits	02	Theory (hr)	20
						Practical (hr)	20
						Independent Learning (hr)	10

**Aim of the Course:**

To provide the knowledge and skills on soil and nutrient management for optimum plant growth

**Intended Learning Outcomes:**

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

- Describe the importance of soil.
- Apply the acquired knowledge pertaining to the soil physical, biological and chemical properties for land use management.
- Identify the major soil types in Sri Lanka and their potential use and constraints.
- Determine the crop nutrient requirements.
- Identify the fertilizers according to their physical features, composition.
- Describe the fertilizer application methods.

**Course Capsule:**

Theory
Soil science: Introduction to soil and its importance in crop production; Factors affecting soil formations; Soil chemical, physical, and biological properties; World soil classification and soils of Sri Lanka; Soil-Plant-Water Relations: Water flow and solute transport through the soil-plant-atmosphere continuum (SPAC); Plant nutrition: Determination of crop nutrient requirement; Macro and Micronutrients - Deficiencies and toxicities; Conventional types of fertilizers; Integrated nutrient management techniques

Practical
Soil sampling and analysis: pH, Bulk density, water holding capacity, cation exchange capacity; Leaf sampling techniques and analysis; Familiarization of nutrient deficiencies and toxicities - Determination and recommendation; Student seminars – tutorials on Soil-Plant-Water relations

**Assessment:**

Continuous assessment: 50%  
 End semester assessment: 50%