Course Title	Crop Protection Technologies			Course Code	BST 21152		
Year	2	Semester	1	Credits	02	Theory (hr)	15
						Practical (hr)	30
						Independent Learning (hr)	

Aim of the Course:

To provide knowledge and skills on crop protection techniques required for preparation and implementation of an efficient crop protection action plan

Intended Learning Outcomes:

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

- Explain the biotic and abiotic factors leading to crop damage.
- Recognize a given crop protection method in relation to conventional and novel technologies.
- Select an appropriate pesticide for a given situation with special emphasis on environment.
- Describe the types of equipment available for agrochemical application with their specific use.
- Develop a crop protection action plan aiming sustainable crop production.

Course Capsule:

Theory
Introduction to crop protection, importance and traditional concepts; Biotic and abiotic factors that damage crops; Conventional and non-conventional crop protection techniques; Cultural methods of crop protection; Biological methods; bio-pesticides; bio-rationals; botanical pesticides; Synthetic pesticides; Classification of pesticides; Pesticide formulations; Efficiency, Advantages and disadvantages of different crop protection techniques; Methods of safe and efficient use of pesticides; Spray drift management; Maintenance and calibration of equipment and machines for crop protection; Preparation of a crop protection action plan

Practical
Factors causing damages to plants; Plant diseases caused by fungi - symptoms and signs; Plant diseases caused by bacteria, viruses and mycoplasma - symptoms and signs; Plant pathogenic nematodes and their identification; Insect pests and their damages; Non insect pests of plants; Common weeds of cropping systems; Non infectious diseases of plants; Selection of pesticides for crop protection; Crop protection equipment; maintenance, adjustments, and calibration; Application of pesticides; drift management; Safety measures in crop protection; Preparation of a crop protection action plan for a given situation, presentation and discussion (Group work)

Assessment:

Continuous assessment: 30%
End semester assessment: 70%