Soil Science

Objective:

To provide knowledge on the physical, chemical, and biological properties of soil. Emphasis will be placed on soil fertility, nutrient management, and sustainable soil conservation methods.

Course Topics:

1. Soil Fertility and Nutrient Management

- Introduction: Overview of soil fertility and nutrient management in the context of agriculture.
- Objectives: To understand key concepts and practical applications of soil fertility and nutrient management.
- Syllabus:
  * Basic principles and concepts
  * Tools, methods, and technologies used
  * Case studies and practical applications
  * Fieldwork and experiments
- Learning Outcomes:
  * Students will be able to explain the fundamentals of soil fertility and nutrient management.
  * Analyze real-life agricultural problems related to soil fertility and nutrient management.
  * Apply theoretical knowledge in practical field conditions.
  * Demonstrate improved decision-making and problem-solving skills.

2. Soil Chemistry

- Introduction: Overview of soil chemistry in the context of agriculture.
- Objectives: To understand key concepts and practical applications of soil chemistry.
- Syllabus:
  * Basic principles and concepts

* Tools, methods, and technologies used

* Case studies and practical applications

* Fieldwork and experiments

- Learning Outcomes:

* Students will be able to explain the fundamentals of soil chemistry.

* Analyze real-life agricultural problems related to soil chemistry.

* Apply theoretical knowledge in practical field conditions.

* Demonstrate improved decision-making and problem-solving skills.

3. Soil Physics and Soil Biology

- Introduction: Overview of soil physics and soil biology in the context of agriculture.

- Objectives: To understand key concepts and practical applications of soil physics and soil biology.

- Syllabus:

* Basic principles and concepts

* Tools, methods, and technologies used

* Case studies and practical applications

* Fieldwork and experiments

- Learning Outcomes:

* Students will be able to explain the fundamentals of soil physics and soil biology.

* Analyze real-life agricultural problems related to soil physics and soil biology.

* Apply theoretical knowledge in practical field conditions.

* Demonstrate improved decision-making and problem-solving skills.