# Integral University, Lucknow
## Integral Institute of Agricultural Science and Technology
## Evaluation Scheme of Undergraduate program
## w.e.f. Session 2021-22

## B.Sc. (Hons.) Agriculture

### SEMESTER – VIII

| Course Code | Course Title | Periods/ Per week | | | Evaluation Scheme Theory Mid Sem | | | Evaluation Scheme Practical Mid Sem | | | Practical End Sem Exam | Sub Total (Theory + Practical Mid Sem Exam) | End Sem Theory Exam | Subject Total | Credit | Total Credit Points | Attributes | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | L | T | P | CT | TA | Total | CT | TA | Total | | | | | | | Employability | Entrepreneurship | Skill Development | Gender Equality | Environment & Sustainability | Human Value | Professional Ethics |
| AG465 | AGRICULTURE WASTE MANAGEMENT | - | - | - | - | - | - | - | - | - | 100 | **100** | - | **100** | 0:0:10 | 10 | √ | √ | √ | | √ | √ | √ |
| AG466 | MILK PROCESSING AND MILK PRODUCTS | - | - | - | - | - | - | - | - | - | 100 | **100** | - | **100** | 0:0:10 | 10 | √ | √ | √ | | √ | √ | √ |
| AG467 | FLORICULTURE AND LANDSCAPING | - | - | - | - | - | - | - | - | - | 100 | **100** | - | **100** | 0:0:10 | 10 | √ | √ | √ | | √ | √ | √ |
| AG468 | COMMERCIAL BEEKEEPING | - | - | - | - | - | - | - | - | - | 100 | **100** | - | **100** | 0:0:10 | 10 | √ | √ | √ | | √ | √ | √ |
| AG469 | MUSHROOM CULTIVATION TECHNOLOGY | - | - | - | - | - | - | - | - | - | 100 | **100** | - | **100** | 0:0:10 | 10 | √ | √ | √ | | √ | √ | √ |
| AG470 | ORGANIC PRODUCTION TECHNOLOGY | - | - | - | - | - | - | - | - | - | 100 | **100** | - | **100** | 0:0:10 | 10 | √ | √ | √ | | √ | √ | √ |
| AG471 | PRODUCTION TECHNOLOGY FOR BIOAGENTS AND BIOFERTILIZER | - | - | - | - | - | - | - | - | - | 100 | **100** | - | **100** | 0:0:10 | 10 | √ | √ | √ | | √ | √ | √ |
| AG472 | COMMERCIAL HORTICULTURE | - | - | - | - | - | - | - | - | - | 100 | **100** | - | **100** | 0:0:10 | 10 | √ | √ | √ | | √ | √ | √ |
| AG473 | FOOD PROCESSING | - | - | - | - | - | - | - | - | - | 100 | **100** | - | **100** | 0:0:10 | 10 | √ | √ | √ | | √ | √ | √ |
| AG474 | POULTRY PRODUCTION TECHNOLOGY | - | - | - | - | - | - | - | - | - | 100 | **100** | - | **100** | 0:0:10 | 10 | √ | √ | √ | | √ | √ | √ |
| AG475 | SEED PRODUCTION TECHNOLOGY | - | - | - | - | - | - | - | - | - | 100 | **100** | - | **100** | 0:0:10 | 10 | √ | √ | √ | | √ | √ | √ |

**B. Sc. (Hons.) Agriculture**
**SEMESTER-VIII**
**AGRICULTURE WASTE MANAGEMENT**
**Course Code: AG465**
**w.e.f. Session 2021-22**

**Course Objectives:**

- To gain the knowledge of management of agriculture wastes
- To know about how farmers can reduce food waste
- To assess the importance of conversion of waste into renewable energy
- To know about how agricultural wastes harm environment
- To learn how to create wealth from agricultural waste

**Course Outcome:**

***After completion of the course, a student will be able to***

| COURSE OUTCOME (CO) | DESCRIPTION |
|---|---|
| **CO1** | To gain the knowledge of management of agriculture wastes |
| **CO2** | To know about how farmers can reduce food waste |
| **CO3** | To assess the importance of conversion of waste into renewable energy |
| **CO4** | To know about how agricultural wastes harm environment |
| **CO5** | To learn how to create wealth from agricultural waste |

**CO-PO-PSO Mapping**

| PO | PO | | | | | | | | | | | | PSO | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO** | **POI** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO10** | **PO11** | **PO12** | **PSO1** | **PSO2** | **PSO3** |
| **CO1** | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 3 |
| **CO2** | 3 | 3 | 3 | 1 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 3 |
| **CO3** | 3 | 2 | 1 | 1 | 2 | 2 | 3 | 3 | 1 | 2 | 2 | 3 | 2 | 3 | 3 |
| **CO4** | 3 | 2 | 2 | 2 | 1 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 3 |
| **CO5** | 3 | 1 | 1 | 1 | 1 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 3 |

**B. Sc. (Hons.) Agriculture**
**SEMESTER-VIII**
**FLORICULTURE AND LANDSCAPING**
**Course Code: AG467**
**w.e.f. Session 2021-22**

**Course Objective**

1. The student will gain skill in manual drawing and execution of garden
2. To improve and conserve natural resources by reducing soil erosion
3. To create recreational grounds to provide places for relaxation and community interaction
4. To blend concrete and architectural creations into the natural scenery
5. To modify environmental factors

**Course Outcome:**

***After completion of the course, a student will be able to***

| **COURSE OUTCOME(CO)** | **DESCRIPTION** |
|---|---|
| **CO1** | Student will be able to landscaping terrace gardening, vertical gardening, garden components, adornments etc |
| **CO2** | Students will learn about climber and creepers: importance, selection, propagation, planting |
| **CO3** | Students can make landscape and gardening and interior landscaping plans |
| **CO4** | Student will become eligible to manage a commercial floriculture unit |
| **CO5** | The student will be able to practice production technology of cut flowers, loose flowers and principle of growing commercial flowers |

| | **CO** | Agriculture | **PO2** Problem Solving | **PO3** Experimentation inputs | Horticultural protection | **PO7** Extension | **PO8** Environment and sustainability | **PO9** Ethics | **PO10** Individual and team work | **PO11** Communicating | **PSO1:** Applied | **PSO2:** | **PSO3:** Work with |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | Student will be able to landscaping terrace gardening, vertical gardening, garden components, adornments etc | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **CO 2** | Students will learn about climber and creepers: importance, selection, propagation, planting | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **CO 3** | Students can make landscape and gardening and interior landscaping plans | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **CO 4** | Student will become eligible to manage a commercial floriculture unit | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **CO 5** | The student will be able to practice production technology of cut flowers, l oose flowers and principle of growing commercial flowers | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 3: Strong contribution, 2: average contribution, 1: Low contribution | | | | | | | | | | | | | | | |

**B. Sc. (Hons.) Agriculture**
**SEMESTER-VIII**
**COMMERCIAL BEEKEEPING**
**Course Code: AG468**
**w.e.f. Session 2021-22**

**Course Objective**

1. Basic knowledge of Honey bees.
2. To learn about the bee keeping appliances
3. To impart the knowledge to the students regarding the colonies and species of honey bees
4. To commercialize the apiculture which will help in sustainable development
5. To impart knowledge to the students that the apiculture is also a part of livelihood for a number of people.

**Course Outcome:**

***After completion of the course, a student will be able to***

| COURSE OUTCOME (CO) | DESCRIPTION |
|---|---|
| **CO1** | Students will learn about the basics of honey bees |
| **CO2** | Students will learn about the bee keeping appliances |
| **CO3** | Students will familiarize with the different honey extracting apparatus |
| **CO4** | They will gain knowledge of the various products of honeybees including beeswax, propolis, flower pollen, bee pollen, and royal jelly including honey |
| **CO5** | Studied will be able to commercialize the honey bees which will help in sustainable development along with a part of earning |

| | CO | PO1 Basic Agriculture knowledge | PO2 Problem Solving | PO3 Field Experimentations | usage | PO5 Modern Horticultural implements | PO6 Modern plant protection implements | PO7 Extension Programme | PO8 Environment and sustainability | PO9 Ethics | PO10 Individual and team work | PO11 Communication | PO12 Lifelong learning | PSO1: Applied knowledge of | PSO2: Development of scientific, economic and environmental | PSO3: Work with professional ethics |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | Basic knowledge of Honey bees | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |
| CO2 | To learn about the bee keeping appliances | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |
| CO3 | To impart the knowledge to the students regarding the colonies and species of honey bees | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |
| CO4 | To commercialize the apiculture which will help in sustainable development | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |
| CO5 | To impart knowledge to the students that the apiculture is also a part of livelihood for a number of people | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |
| | | | | | 3: Strong contribution, 2: average contribution, 1: Low contribution | | | | | | | | | | | |

**B. Sc. (Hons.) Agriculture**
**SEMESTER-VIII**
**MUSHROOM CULTIVATION TECHNOLOGY**
**Course Code: AG469**
**w.e.f. Session 2021-22**

**Course Objective**

1. Basic knowledge of Mushrooms.
2. To learn about the **morphology and types of Mushrooms**
3. To impart the knowledge to the students regarding the spawn production technique.
4. To aware the identification of edible and poisonous Mushrooms.
5. To learn the prospects and scope of mushroom cultivation in small scale industry

**Course Outcome:**

***After completion of the course, a student will be able to***

| COURSE OUTCOME (CO) | DESCRIPTION |
|---|---|
| **CO1** | Students will learn about the basics of Mushroom |
| **CO2** | Students will learn about the **morphology and types of Mushrooms** |
| **CO3** | Students will familiarize with spawn production technique |
| **CO4** | They will be aware regarding the identification of edible and poisonous Mushrooms |
| **CO5** | Studied will be able to commercialize the mushroom which will help in sustainable development along with a part of earning |

| | CO | **PO1** Basic Agriculture knowledge | **PO2** Problem Solving | **PO3** Field Experimentations implementation | usage | Horticultural | protection | **PO7** Extension Programme | **PO8** Environment and sustainability | **PO9** Ethics | **PO10** Individual and team work | **PO11** Communication | **PO12** Lifelong learning | **PSO1:** Applied | **PSO2:** Development of | **PSO3:** Work with professional ethics |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | Students will learn about the basics of Mushroom | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |
| **CO 2** | Students will learn about the morphology and types of Mushrooms | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |
| **CO 3** | Students will familiarize with spawn production technique | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |
| **CO4** | They will be aware regarding the identification of edible and poisonous Mushrooms | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |
| **CO5** | Studied will be able to commercialize the mushroom which will help in sustainable development along with a part of earning | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |
| 3: Strong contribution, 2: average contribution, 1: Low contribution | | | | | | | | | | | | | | | | |

**B. Sc. (Hons.) Agriculture**
**SEMESTER-VIII**
**ORGANIC PRODUCTION TECHNOLOGY**
**Course Code: AG470**
**w.e.f. Session 2021-22**

**Course Objectives:**

- Conserving environment and natural resources, re- establishing.
- Ecological balance, encouraging sustainable agriculture.
- Improving soil fertility, conserving flora and fauna, improving genetic diversity.
- To produce food of high nutritional quality in sufficient quantity.
- To maintain and increase long term fertility of soil.

**Course Outcome:**

**After completion of the course, a student will be able to**

| COURSE OUTCOME (CO) | DESCRIPTION |
|---|---|
| **CO1** | Acquire knowledge on concepts of organic agriculture. |
| **CO2** | Gain the information about the impact of organic farming and indigenous practices on environment. |
| **CO3** | Understand the procedure followed for organic certification as per NPOP guidelines namely production standards, labelling and accreditation. |
| **CO4** | Equip students with geostatistical techniques and variables of crop yield mapping. |
| **CO5** | Understand GIS based nutrient delivery system and DSSAT for variable crop yield mapping |

**CO-PO-PSO MAPPING:**

| | CO | **PO1** Basic Agriculture knowledge | **PO2** Problem Solving | **PO3** Field Experimentations | **PO4** Modern implementation usage | **PO5** Modern Agricultural/Horticultural implements | **PO6** Modern plant protection implements | **PO7** Extension Programme | **PO8** Environment and sustainability | **PO9** Ethics | **PO10** Individual and team work | **PO11** Communication | **PO12** Lifelong learning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | Acquire knowledge on concepts of organic agriculture. | 3 | 3 | 2 | 3 | 1 | 3 | 2 | 3 | 2 | 3 | 2 | 3 |
| **CO2** | Gain the information about the impact of organic farming and indigenous practices on environment. | 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 1 | 2 |
| **CO3** | Understand the procedure followed for organic certification as per NPOP guidelines namely production standards, labelling and accreditation. | 3 | 2 | 1 | 1 | 2 | 2 | 2 | 3 | 1 | 1 | 1 | 3 |
| **CO4** | Equip students with geostatistical techniques and variables of crop yield mapping. | 3 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 1 | 3 |
| **CO5** | Understand GIS based nutrient delivery system and DSSAT for variable crop yield mapping | 3 | 1 | 2 | 1 | 2 | 2 | 3 | 3 | 2 | 2 | 1 | 3 |
| 3: Strong contribution, 2: average contribution, 1: Low contribution | | | | | | | | | | | | | |

**B. Sc. (Hons.) Agriculture**
**SEMESTER-VIII**
**PRODUCTION TECHNOLOGY FOR BIOAGENTS AND BIOFERTILIZER**
**Course Code: AG471**
**w.e.f. Session 2021-22**

**Course Objectives:**

- To gain the knowledge of production of Bioagents
- To know about Biofertilizers production
- To assess the importance of biofertilizer and bioagents use
- To know about how environment can be sustained by bioagents and biofertilizers
- To learn how to create wealth from Bioagents and Biofertilizers

**Course Outcome:**

***After completion of the course, a student will be able to***

| COURSE OUTCOME (CO) | DESCRIPTION |
|---|---|
| **CO1** | To gain the knowledge of production of Bioagents |
| **CO2** | To know about Biofertilizers production |
| **CO3** | To assess the importance of biofertilizer and bioagents use |
| **CO4** | To know about how environment can be sustained by bioagents and biofertilizers |
| **CO5** | To learn how to create wealth from Bioagents and Biofertilizers |

**CO-PO-PSO Mapping**

| PO | PO | | | | | | | | | | | | PSO | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO** | **POI** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO10** | **PO11** | **PO12** | **PSO1** | **PSO2** | **PSO3** |
| **CO1** | 3 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 1 | 3 | 2 | 3 | 2 | 3 | 3 |
| **CO2** | 3 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 2 | 2 | 3 |
| **CO3** | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 3 | 1 | 2 | 2 | 3 | 2 | 3 | 3 |
| **CO4** | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 3 |
| **CO5** | 3 | 3 | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 3 |

**B. Sc. (Hons.) Agriculture**
**SEMESTER-VIII**
**COMMERCIAL HORTICULTURE**
**Course Code: AG472**
**w.e.f. Session 2021-22**

**Course Objective**

1. Student will learn basic field knowledge and practical problems in production of horticultural crops
2. Applying the propagation and various sowing methods
3. Dissemination of advanced Horticultural technology
4. Area expansion under Horticulture crops based on agro-climatic suitability
5. Production and distribution of quality planting materials of various Horticultural plants

**Course Outcome:**

***After completion of the course, a student will be able to***

| COURSE OUTCOME (CO) | DESCRIPTION |
|---|---|
| **CO1** | Students can become eligible to undertake end to end technical and management aspects of a commercial nursery |
| **CO2** | Have practical knowledge on different Horti-based industries situated in and around the neighboring districts |
| **CO3** | Applying and analyzing the food safety methods |
| **CO4** | Understanding the importance of commercial horticulture and protected cultivation |
| **CO5** | Can practice skills in various organic production techniques and regulatory practices |

| | CO | **PO1** Basic Agriculture knowledge | **PO2** Problem Solving | **PO3** Field Experimentations | **PO4** Modern implementation usage | **PO5** Modern Horticultural implements | **PO6** Modern plant protection implements | **PO7** Extension Programme | **PO8** Environment and sustainability | **PO9** Ethics | **PO10** Individual and team work | **PO11** Communication | **PO12** Lifelong learning | **PSO1:** Applied knowledge of basic | **PSO2:** Development of scientific, | **PSO3:** Work with professional ethics |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | Students can become eligible to undertake end to end technical and management aspects of a commercial nursery | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **CO2** | Have practical knowledge on different Horti-based industries situated in and around the neighboring districts | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **CO3** | Applying and analyzing the food safety methods | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **CO4** | Understanding the importance of commercial horticulture and protected cultivation | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| **CO5** | Can practice skills in various organic production techniques and regulatory practices | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

3: Strong contribution, 2: average contribution, 1: Low contribution

**B. Sc. (Hons.) Agriculture**
**SEMESTER-VIII**
**FOOD PROCESSING**
**Course Code: AG473**
**w.e.f. Session 2021-22**

**Course Objective**

1. Basic knowledge regarding importance and scope processing of food.
2. To learn about the different unit operations in food processing
3. To impart the knowledge to the students regarding the raw material handling and processing.
4. To commercialize the processed products after processing and packaging of food.
5. To impart knowledge to the students that the food processing is also a part of livelihood and plays important role in our economy.

**Course Outcome:**

***After completion of the course, a student will be able to***

| COURSE OUTCOME (CO) | DESCRIPTION |
|---|---|
| **CO1** | Students will learn about the importance and scope processing of food |
| **CO2** | Students will learn about the different unit operations in food processing |
| **CO3** | Students will familiarize with the different types of raw material handling and processing |
| **CO4** | They will gain knowledge of the processed products after processing and packaging of food |
| **CO5** | Studied will be able to commercialize the food processing is also a part of livelihood and plays important role in our economy |

| | CO | **PO1** Basic Agriculture knowledge | **PO2** Problem Solving | **PO3** Field Experimentations | **PO4** Modern implementation usage | **PO5** Modern Horticultural implements | **PO6** Modern plant protection implements | **PO7** Extension Programme | **PO8** Environment and sustainability | **PO9** Ethics | **PO10** Individual and team work | **PO11** Communication | **PO12** Lifelong learning | **PSO1:** Applied knowledge of basic | **PSO2:** Development of scientific, economic and environmental | **PSO3:** Work with professional ethics |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | Basic knowledge regarding importance and scope processing of food. | 2 | 3 | 3 | 3 | 3 | - | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 |
| **CO2** | To learn about the different unit operations in food processing | 3 | 3 | 2 | 3 | 3 | - | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 |
| **CO3** | To impart the knowledge to the students regarding the raw material handling and processing | 3 | 2 | 3 | 3 | 3 | - | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 3 |
| **CO4** | To commercialize the processed products after processing and packaging of food. | 3 | 3 | 3 | 3 | 3 | - | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 |
| **CO5** | To To impart knowledge to the students that the food processing is also a part of livelihood and plays important role in our economy | 2 | 3 | 2 | 3 | 3 | - | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 3 |
| | 3: Strong contribution, 2: average contribution, 1: Low contribution | | | | | | | | | | | | | | | |

**B. Sc. (Hons.) Agriculture**
**SEMESTER-IV**
**PRINCIPLES OF SEED TECHNOLOGY**
**Paper Code: AG223**
**w.e.f. Session 2021-22**

**Course Objective**

1. Basic knowledge of seed and classes of seed.
2. To learn about the difference between seed and grain.
3. To learn about the basic structure of WTO.
4. To learn about the basic structure of seed inspector.
5. To impart the knowledge of seed certification agencies.

**Course Outcome:**

***After completion of the course, a student will be able to***

| COURSE OUTCOME (CO) | DESCRIPTION |
|---|---|
| **CO1** | Basic knowledge of seed and classes of seed. |
| **CO2** | To learn about the difference between seed and grain. |
| **CO3** | To learn about the basic structure of WTO. |
| **CO4** | To learn about the basic structure of seed inspector. |
| **CO5** | To impart the knowledge of seed certification agencies. |

**CO-PO-PSO Mapping**

| | CO | **PO1** Basic Agriculture knowledge | **PO2** Problem Solving | **PO3** Field Experimentations | **PO4** Modern implementation usage | **PO5** Modern Horticultural implements | **PO6** Modern plant protection implements | **PO7** Extension Programme | **PO8** Environment and sustainability | **PO9** Ethics | **PO10** Individual and team work | **PO11** Communication | **PO12** Lifelong learning | **PSO1:** Applied knowledge of basic | **PSO2:** Development of scientific, economic and environmental principles | **PSO3:** Work with professional ethics |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | Basic knowledge of seed and classes of seed | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |
| **CO2** | To learn about the difference between seed and grain | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |
| **CO3** | To learn about the basic structure of WTO | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |
| **CO4** | To learn about the basic structure of seed inspector | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |
| **CO5** | To impart the knowledge of seed certification agencies. | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | 3: Strong contribution, 2: average contribution, 1: Low contribution | | | | | | | | | | | | | | | |