



**Darrang College
(Autonomous),
Tezpur-784001**

Syllabus for Certificate Course

Course Name: CERTIFICATE COURSE ON MUSHROOM
CULTURE

Approved by :

Academic Council vide Resolution no. DC/AC/2/2025/07 dated 29-12-2025

CERTIFICATE COURSE ON MUSHROOM CULTURE

DEPARTMENT OF BOTANY

DARRANG COLLEGE

Course objectives:

1. To make the learners self to identify edible and poisonous mushrooms.
2. To provide hands on training on mushroom cultivation, packaging and marketing.
3. To help the learners to practice a mean of self employment and income generation.

Learning outcomes:

1. Understanding mushroom, edible and poisonous types and mushroom production.
2. Gain the knowledge of cultivation of different edible mushrooms.
3. Knowledge of harvesting and post harvesting processes of mushroom.
4. Manage the disease and pest of mushrooms.
5. Having the prospects of commercial mushroom production.

Duration: 30 hours.

Module 1: Introduction (2hrs)

Mushroom classification, history and scope of mushroom cultivation, key to differentiate edible from poisonous mushroom.

Module 2: Common Edible Mushroom (2hrs)

Button mushroom (*Agaricus bisporus*), milky mushroom (*Calocybe indica*), Oyester mushroom (*Pleurotus sajorcaju*) and paddy straw mushroom (*Volvariella volvacea*).

Module 3: Principles of Mushroom Cultivation (6hrs).

Farm design: Mushroom farm layout-location of building, plot design of farm, composting platform, equipment and facilities, pasteurization room and growing rooms, mushroom bed preparation.

Spawn production, culture media preparation-production of pure culture, mother spawn and multiplication of spawn.

Module 4: Disease Control and Pest Management (2hrs)

Disease, Control and Pest management.

Module 5: Nutritional Profile and Health Benefits of Mushroom. (2hrs)

Nutritional and Medicinal value of Mushroom, Therapeutic aspects, Antibacterial effect, Antifungal effect, Antitumor effect and in therapeutic diet.

Module 6: Post Harvest Technology (4hrs)

Preservation of mushroom-freezing, dry freezing, drying, canning, quality assurance and entrepreneurship. Value added products of mushroom.

Module 7: Training/ Workshop/ Field Visit (12hrs).

Practical:

1. Identification of mushrooms, preparation of pure culture, preparation of spawn.
2. Mushroom cultivation at small scale level.

Scheme of the Examination

Maximum marks for the course is 100 including theory and practical.

Text Books

1. Mushroom Cultivation, Tripathy, D P (2005). Oxford & IBH Publishing Co. Pvt. Ltd.
2. Handbook of Edible Mushroom, S. Kannaiyan & K. Ramasamy 1980. Today & Tomorrow Printers & Publishers, New Delhi.
3. Mushroom Production and Processing Technology, Pathak Yadav Gour (2010). Published by Agrobios (India)