



BACHELOR OF ARTS (B.A.)

(THREE YEAR DEGREE COURSE)

SUBJECT

HORTICULTURE

B.A. (HORTICULTURE)

COURSE STRUCTURE

FIRST YEAR

PAPER – 101: Fundamental of Horticulture	35 MARKS
PAPER – 102: Nursery, Husbandry and Forestry	35 MARKS
PAPER – 103: PRACTICAL (Based on Paper 101, 102)	30 MARKS

SECOND YEAR

PAPER – 201: Fruit Science	35 MARKS
PAPER – 202: Vegetable Science	35 MARKS
PAPER – 203: PRACTICAL (Based on Paper 201, 202)	30 MARKS

THIRD YEAR

PAPER – 301: Floriculture and Land Scraping	35 MARKS
PAPER – 302: Post Harvest Technology	35 MARKS
PAPER – 303: PRACTICAL (Based on Paper 301, 302)	30 MARKS

B.A. (HORTICULTURE)

FIRST YEAR DETAILED SYALLBUS

PAPER – 101

Fundamental of Horticulture

- Unit I Types of important soils, soil formation and factors affecting soil formation, properties of soil, Soil moisture and losses of soil water.
- Unit II Essential plant nutrients, their role in plant growth deficiency symptoms and their remedies.
- Unit III Types of manures and fertilizers, Application of manures and foliar Feeding.
- Unit IV Irrigation of orchards and abnormality caused by excess and deficiency of moisture.
- Unit V Cultivation of orchard soils: Sod, clean, cultivation, Intercrops, cover crops and fillers.

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FIRST YEAR DETAILED SYALLBUS

PAPER – 102

Nursery, Husbandry and Forestry

- Unit I Importance and present position of nursery husbandry, selection of location and site, layout of nursery, raising of nursery plants by sexual and asexual methods.
- Unit II Role of mother plants and plant regulators in Plant Propagation and use of polythene in Horticulture.
- Unit III After care of nursery Plants: Irrigation, manuring, fertilization, protection of nursery plants from insects, diseases and adverse weather conditions, weed control and transplanting.
- Unit IV Importance and present position of forestry, rural demand for wood and wood products forest influences on human health, environment and soil and water conservation value of forest.
- Unit V Method of raising forest plants and nursery management – Planning of forest nursery and planting of forest plants and their after care with regard to irrigation, manuring, gap filling, protection from natural hazards and insect & diseases.

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FIRST YEAR DETAILED SYALLBUS

PAPER – 103

Practical

1. Techniques of Soil sampling and use of soil sampling and tools.
2. Filling of pots, repotting, depoting and shifting of pot-plants.
3. Calculation of water requirement of fruit crops and forest plants.
4. Preparation of soil nursery beds for raising fruit and forest plants.
5. Liquid manuring fertilization and foliar feeding of nursery plants.
6. Acquaintance with practical knowledge of important methods of Plant Propagation.
7. Use of plant regulators in Plant Propagation.
8. Layout of nursery and its main components.
9. Lifting, Packing and disposal.
10. Identification of important nursery plants and fertilizers.
11. Visit to some commercial nurseries.
12. Preparation of sessional record.

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SECOND YEAR DETAILED SYALLBUS

PAPER – 201

Fruit Science

- Unit I Importance, present position and future scope of fruit growing in Uttar Pradesh, Establishment of orchard, selection of location and site, Planning, selection of Plant material, layout ad planting.
- Unit II Care and protection of young and established orchard :
- (i) Inter cropping
 - (ii) Manuring
 - (iii) Irrigation
 - (iv) Training and Pruning
 - (v) Soil management and weed control
 - (vi) Protection from insects, diseases and adverse weather conditions.
- Unit III Harvesting, packing, marketing and storage of fruits, changes during development ripening and storage of fruits.
- Unit IV Causes of unfruitfulness, fruit drop, fruit splitting and their over-coming remedial measures. Rejuvenation of uneconomic orchard and use of hormones in fruit growing.
- Unit V Cultivation of fruits of local importance: Mango, Citrus, Guava, Papaya, Aonla, Jak fruit Phalsa, Grapes, Ber, Peach and Pomegranate.

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SECOND YEAR DETAILED SYALLBUS

PAPER – 202

Vegetable Science

- Unit I Importance, present position and future scope of vegetable growing in Uttar Pradesh. Types of vegetable farming and classification of vegetables.
- Unit II Role of climate, soil, seed supply-Production, purchase etc. sowing and raising of seedlings, Transplanting, irrigation, manures, fertilizers and plant protection in vegetable production.
- Unit III Post harvest deterioration of vegetable and methods for delaying it, storage of vegetables.
- Unit IV Growing of vegetable for exhibition, Marketing of vegetables and vegetable seeds.
- Unit V Culture and seed raising of the following : Cauliflower, Cabbage, Tomato, Brinjal, Chilies. Carrot, Radish, Onion, Garlic, Peas and Beans, Coriander, Okra, Spinach, gourds and melons.

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SECOND YEAR DETAILED SYALLBUS

PAPER – 203

Practical

1. Systems of laying out an orchard and working out the number of fruit plants by each system.
2. Use of planting board in planting of Orchards.
3. Layout of nutritional orchard with view to meet the demand of a rural family.
4. After care, Training, pruning and protection of young and old plants.
5. Layout of vegetable farms.
6. Planning and layout of kitchen garden for a rural family.
7. Practical knowledge of raising of seedings of vegetables.
8. Growing of important vegetables in a demonstration plot.
9. Use of hormones, insecticides, fungicides.
10. Cropping scheme for vegetable farms.
11. Identification of fruit and vegetable plant material.
12. Visit to some commercial orchards and vegetable farms and markets.
- 13 Preparation of Sessional record.

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THIRD YEAR DETAILED SYALLBUS

PAPER – 301

Floriculture and Land Scraping

- Unit I Importance and scope of floriculture, detailed study of the cultivation of following : Rose, Chrysanthemum, Cana, Bougainvillea, Dahlias, Jasmines and Annuals.
- Unit II Response of Important flowers to environment changes, Flower forcing and growing of flower for exhibition and principles of flowers, arrangement for exhibit in.
- Unit III Making Maintenance Hedges and Lawn, Concept Bonsai Culture, its Importance, Present need and principles of Bonsai making.
- Unit IV Climbers, Avenue trees, Garden adornments, Planning and Planting of different styles of garden, parks, city square.
- Unit V Meaning and importance of landscaping:

Principles and practices of Landscape Gardening. Aesthetic Planning of college, farms, building compound and such other places, Road and canal side planting.

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THIRD YEAR DETAILED SYALLBUS

PAPER – 302

Post Harvest Technology

- Unit I Importance, present position and future scope in fruit and vegetable preservation industry in India. General Principles of Fruit and Vegetables preservation.
- Unit II Canning of important fruits and vegetables, cause of spoilage of canned fruit vegetables and their remedial measures.
- Unit III Fruit and vegetables Juices, Squashes and Cordials from citrus fruits, Mango, Grapes, Phalsa, Pomegranate, pineapple, carrot and Tomato.
- Unit IV Jams and Jelly and Marmalades, Role of pectin, Sugar and acid in Jelly formation, General methods of preparation of James, Jelly and marmalades.
- Unit V General Principles of making Pickles, sauce, ketchup, chutuny, murabba, Equipment and apparatus needed, preparation and procedure for making lime and green chilies pickle, tomato sauce and ketchups, mango chutuny, amla murabba along with their cost of production.

B.A. (HORTICULTURE)

THIRD YEAR DETAILED SYALLBUS

PAPER – 303

Practical

1. Multiplication of Oramental plants.
2. Cultivation of annuals.
3. Planning & layout of Herbaceous and Shrubbery Borders.
4. Making and Maintenance of Hedges and Lawn.
5. Making of garland, Vasg, bouquet, buttonhole, wreath, chaplet etc..
6. Planning and layout of landscape and formal style gardens, parks, bungalow compounds, public places like Hotels, Restaurants, etc..
7. Aesthetic planning of places of public utility in Villages like schools, Hospitals and Panchyat Ghar.
8. Practice in making jam, Jelly and Marmalade and Squashes.
9. Canning, Pickling and Dehydration of Vegetables, preparation of Sauce, Chutany, Ketchup.
10. Identification of ornamental plants and garden tools and equipment and apparatus used in preservation.
11. A visit to important Gardens, parks and fruit preservation industries.
12. Preparation of Sessional Record.