



"সমানো মনসে সমিতি:সমানী"

UNIVERSITY OF NORTH BENGAL

PROPOSED COURSE STRUCTURE

**FOUR YEAR UNDERGRADUATE
PROGRAM (FYUGP)**

SEMESTER-II

Skill Enhancement Course

HORTICULTURE

**UNDER THE
NEW CURRICULUM AND
CREDIT FRAMEWORK, 2022**

W.E.F. 2024–2025

SEMESTER - II

Course Type: Skill Enhancement Course

Course Code: POOBSEC227

Course Name: Horticulture

Credits: 3 (Theory-2, Practical-1)

Full Marks: 60 (Theory-40, Practical-20)

Brief Course Description:

This course deals with studying the different branches of horticulture including the study of ornamental plants, flowering plants, and fruit and vegetable crops. The course will help the students learn the importance of horticulture in employment generation and socio-economy. This course will help in the development of good entrepreneurial skills.

Prerequisite(s) and/or Note(s):

- (1) High School Biology.
- (2) Note(s): Syllabus may be modified after and not during the term itself, depending on the circumstances. However, students will be evaluated only on the basis of topics covered in the course.

Course Objectives:

Knowledge acquired:

- (1) Significance of horticulture in food security and employment generation.
- (2) Knowledge of important ornamental, fruit and vegetable plants.
- (3) Knowledge of floriculture and the techniques of flower preservation.

Skills gained:

- (1) Process of cut flower technique and bonsai.
- (2) Marketing strategies of horticultural crops.
- (3) Basic planning and layout of traditional and modern gardens.

Competency Developed:

- (1) Students will acquire technical knowledge about the cultivation and production of important horticultural crops.
- (2) Students will acquire technical knowledge in designing gardens, parks, and avenues.

THEORY

Credits: 2

Total lectures: 30

Unit 1: Introduction

(6 lectures)

Scope and importance, Branches of horticulture; Role in rural economy and employment generation; Importance in food and nutritional security; Urban horticulture and ecotourism.

Unit 2: Ornamental plants and Floriculture

(10 lectures)

Types, classification (annuals, perennials, climbers and trees); Identification and salient features of some ornamental flowering plants (rose, marigold, gladiolus, carnations, orchids, gerberas, tuberose, cacti); Ornamental flowering trees (Indian laburnum, gulmohar, Lagerstroemia, fishtail and areca palms); Cut flowers, market demand and supply of cut flowers; Importance of flower shows and exhibitions; Bonsai.

Unit 3: Fruit and vegetable crops

(8 lectures)

Pomology and Olericulture; Production, distribution and marketing of large fruits (apple, mango, citrus and banana), small fruits (strawberries and raspberries), and nuts (almonds and walnuts); Production, distribution and marketing of vegetable crops (tomato, chillies and cucurbits).

Unit 4: Landscaping and garden design

(6 lectures)

Planning and layout (parks and avenues); gardening traditions - Ancient Indian, European, Mughal and Japanese Gardens; Urban forestry; policies and practices.

PRACTICAL

Credits: 1

Total classes: 30

1. Demonstration of cutting, grafting and layering.
2. Study of potting, depotting and repotting.
3. Study of soil moisture content, porosity, bulk and tapped density, pH.
4. Study of the process of flower drying – air drying, oven drying, using desiccant (silica gel), pressing.
5. Visit to a local nursery/horticulture farm.

Suggested Readings

1. Singh, D. & Manivannan, S. (2009). Genetic Resources of Horticultural Crops. Ridhi International, Delhi, India.
2. Swaminathan, M.S. and Kochhar, S.L. (2007). Groves of Beauty and Plenty: An Atlas of Major Flowering Trees in India. Macmillan Publishers, India.
3. NIIR Board (2005). Cultivation of Fruits, Vegetables and Floriculture. National Institute of Industrial Research Board, Delhi.
4. Kader, A.A. (2002). Post-Harvest Technology of Horticultural Crops. UCANR Publications, USA.
5. Capon, B. (2010). Botany for Gardeners. 3rd Edition. Timber Press, Portland, Oregon.

QUESTION PATTERN & TOTAL MARKS DISTRIBUTION FOR SEC PAPER

Theoretical Paper (Full Marks = 40)

Sl No.	Questions to be answered	Out of	Marks for each Question	Total Marks
1.	5	8	1	$5 \times 1 = 5$
2.	3	5	5	$3 \times 5 = 15$
3.	2	4	10	$2 \times 10 = 20$

PRACTICAL QUESTION PATTERN & EXAMINATION GUIDELINES

Practical Paper (Full Marks = 20)

❖ Layout of marks for practical examination:

a)	Experiment/ Demonstration	6 Marks
b)	Submission of Field Report/ Assignment	10 Marks
c)	Laboratory notebook	2 Marks
d)	Viva Voce	2 Marks
	Total	20 Marks

❖ Questions are to be set following the practical syllabus.

- 1. For experiment/demonstration** – to be set from serial no. 1, 2, 3, 4. (alternate questions may be set).
- 2. For submission of field report/ assignment** – the report should be prepared on the basis of field visit as per serial no. 5 with proper photographs and documentation.
Note: In case the field visit cannot be conducted, only in such cases, the students should be instructed to conduct a field visit themselves as per serial no. 5 and submit the assignment based on the same.
- 3. For laboratory notebook** – the signed laboratory class notebook is to be submitted at the time of the exam.
- 4. For viva-voce** – to be asked from the whole syllabus with special emphasis on the practical syllabus.

DURATION OF EXAMINATION FOR SEC PAPERS

Semester End Examination	Full Marks	Duration of Exams
Theoretical	40	2 Hours
Practical	20	3 Hours