

	Skill Enhancement Course: Mushroom Cultivation I
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No. of Hours- 45

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the Course			Eligibility criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical/Practice		
Mushroom Cultivation I	2	1	0	1	Passed class XII	Nil

Skill Enhancement Courses in Botany		
Programme : Skill Enhancement Courses in Botany	Year: I	Semester: I
Subject: Botany		
Course: BOT SEC MC1	Mushroom Cultivation I	
Course Outcomes: The successful students will be able to: 1. Understand the economic importance of mushroom cultivation. 2. To learn the basic tools and techniques used in mushroom cultivation. 3. To learn the skills for developing commercial enterprise of mushroom cultivation.		

Credits: 2	Skill Enhancement Course
Max. Marks: As per Univ. rules	Min. Passing Marks: As per Univ. rules

Unit	Topic	No. of Hours (15)
1	Introduction to mushrooms and their economic importance Scope of mushroom cultivation in India Nutritional and medicinal value of mushrooms Important edible and medicinal mushrooms	15

Practical/Lab Course BOT SEC MC 1P

Unit	Topic	No. of Hours (30)
1	Field visit to the nearby area for identification of naturally growing mushroom species Collection techniques and preservation of mushrooms Introduction to laboratory equipment for mushroom cultivation Visit to mushroom cultivation laboratory/farm	30

Skill Enhancement Course: Mushroom Cultivation II

No. of Hours- 45

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the Course			Eligibility criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical/Practice		
Mushroom Cultivation II	2	1	0	1		Nil

Skill Enhancement Courses in Botany		
Programme : Skill Enhancement Courses in Botany		Year: I Semester: II
Subject: Botany		
Course: BOT SEC MC2	Mushroom Cultivation II	

Credits: 2	Skill Enhancement Course
Max. Marks: As per Univ. rules	Min. Passing Marks: As per Univ. rules

Unit	Topic	No. of Hours (15)
1	Spawn and the methods of spawn production Selection and preparation of substrates (compost) for mushroom cultivation Sterilization and pasteurization techniques Storage and transportation of spawn and substrates	15

Practical/Lab Course BOT SEC MC 2P

Unit	Topic	No. of Hours (30)
1	Preparation and multiplication of spawn Procedure for testing the spawn quality Methods and equipment used in sterilization and pasteurization of compost Methods of substrate preparation for different mushroom species	30

	Skill Enhancement Course: Mushroom Cultivation III
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No. of Hours- 45

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the Course			Eligibility criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical/Practice		
Mushroom Cultivation III	2	1	0	1		Nil

Skill Enhancement Courses in Botany		
Programme : Skill Enhancement Courses in Botany		Year: II Semester: III
Subject: Botany		
Course: BOT SEC MC3	Mushroom Cultivation III	

Credits: 2	Skill Enhancement Course
Max. Marks: As per Univ. rules	Min. Passing Marks: As per Univ. rules

Unit	Topic	No. of Hours (15)
1	Cultivation of Button mushroom Cultivation of Oyster mushroom Cultivation of Shiitake mushroom Cultivation of medicinal mushrooms (<i>Cordyceps</i> and <i>Ganoderma</i>)	15

Practical/Lab Course BOT SEC MC 3P

Unit	Topic	No. of Hours (30)
1	Inoculation and Incubation techniques of spawn. Monitoring of growth in cultivation rooms Methods of harvesting and quality assessment techniques Yield estimation in different cultivation methods	30

Skill Enhancement Course: Mushroom Cultivation IV

No. of Hours- 45

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the Course			Eligibility criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical/Practice		
Mushroom Cultivation IV	2	1	0	1		Nil

Skill Enhancement Courses in Botany

Programme : Skill Enhancement Courses in Botany		Year: II	Semester: IV
Subject: Botany			
Course: BOT SEC MC4	Mushroom Cultivation III		

Credits: 2	Skill Enhancement Course
Max. Marks: As per Univ. rules	Min. Passing Marks: As per Univ. rules

Unit	Topic	No. of Hours (15)
1	Common diseases impacting the cultivation of mushrooms Methods for controlling disease during mushroom cultivation Pest management during mushroom cultivation Hygiene and sanitation of cultivation rooms	15

Practical/Lab Course BOT SEC MC 4P

Unit	Topic	No. of Hours (30)
1	Identification of common diseases in mushrooms Isolation of pathogens from mushrooms Study of bio-control agents used to protect mushrooms Training on integrated pest management	30

	Skill Enhancement Course: Mushroom Cultivation V
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No. of Hours- 45

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the Course			Eligibility criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical/Practice		
Mushroom Cultivation V	2	1	0	1		Nil

Skill Enhancement Courses in Botany

Programme : Skill Enhancement Courses in Botany		Year: III	Semester: V
Subject: Botany			
Course: BOT SEC MC5	Mushroom Cultivation V		

Credits: 2	Skill Enhancement Course
Max. Marks: As per Univ. rules	Min. Passing Marks: As per Univ. rules

Unit	Topic	No. of Hours (15)
1	Methods for storage of mushrooms Value added products from mushrooms Nutraceutical from the mushrooms Safety standards in mushroom products	15

Practical/Lab Course BOT SEC MC 5P

Unit	Topic	No. of Hours (30)
1	Techniques of drying and preservation of mushrooms Development of value added products from mushrooms Quality testing of mushroom products Visit to mushroom processing unit	30

Skill Enhancement Course: Mushroom Cultivation VI

No. of Hours- 45

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the Course			Eligibility criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical/Practice		
Mushroom Cultivation 6	2	1	0	1		Nil

Skill Enhancement Courses in Botany

Programme : Skill Enhancement Courses in Botany		Year: III	Semester: VI
Subject: Botany			
Course: BOT SEC MC6	Mushroom Cultivation VI		

Credits: 2	Skill Enhancement Course
Max. Marks: As per Univ. rules	Min. Passing Marks: As per Univ. rules

Unit	Topic	No. of Hours (15)
1	Government schemes and subsidies in mushroom cultivation Cost-benefit analysis for setting a mushroom cultivation unit Marketing strategies for mushrooms Supply chain management for mushrooms	15

Practical/Lab Course BOT SEC MC 6P

Unit	Topic	No. of Hours (30)
1	Preparation of a business plan for mushroom farm Market survey on the demand of mushrooms Liaising with the mushroom's sellers/users (hostels, restaurants, vegetable sellers) Interactions with successful mushroom entrepreneurs	30

Suggested Readings

- Bahl, N. (2000). Hand book of Mushrooms. Oxford & Ibh Publishing Co. Pvt Ltd.
- Marimuthu, T. Krishnamoorthy, A.S. Sivaprakasam, K. and Jayarajan. R. (1991). Oyster Mushrooms, Department of Plant Pathology, Tamil Nadu Agricultural University, Coimbatore.
- Swaminathan, M. (1990). Food and Nutrition. Bappco, The Bangalore Printing and Publishing Co. Ltd., No. 88, Mysore Road, Bangalore - 560018.
- Tewari, P. and Kapoor, S.C. (1988). Mushroom cultivation, Mittal Publications, Delhi.

	Skill Enhancement Course: Hydroponics I
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No. of Hours- 45

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the Course			Eligibility criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical/Practice		
Hydroponics I	2	1	0	1		Nil

Skill Enhancement Courses in Botany		
Programme : Skill Enhancement Courses in Botany	Year: I	Semester: I
Subject: Botany		
Course: BOT SEC H1	Hydroponics I	
Course Outcomes: The successful students will be able to: 1. Develop a thorough understanding of the concepts of Hydroponics 2. Students will be trained in establishing hydroponic facility. 3. Students will understand various government policies in marketing of hydroponic produce.		

Credits: 2	Skill Enhancement Course
Max. Marks: As per Univ. rules	Min. Passing Marks: Asper Univ. rules

Unit	Topic	No. of Hours (15)
1	Introduction, Basic principles of hydroponics Importance and scope of hydroponic system Types of hydroponic systems: Nutrient Film Technique (NFT), Deep Water Culture (DWC), ebb and flow, drip irrigation and wick system Advantages and disadvantages of hydroponics over traditional farming	15

Practical/Lab Course BOT SEC H 1P

Unit	Topic	No. of Hours (30)
1	Setting up a basic hydroponic system Identifying different hydroponic setups and their components Introduction to different growing media for hydroponic system.	30

Skill Enhancement Course: Hydroponics II

No. of Hours- 45

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the Course			Eligibility criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical/Practice		
Hydroponics II	2	1	0	1	Skill Enhancement Courses in Botany	Nil

Skill Enhancement Courses in Botany		
Programme : Skill Enhancement Courses in Botany		Year: I
Semester: II		
Subject: Botany		
Course: BOT SEC H 2	Hydroponics II	

Credits: 2	Skill Enhancement Course
Max. Marks: As per Univ. rules	Min. Passing Marks: As per Univ. rules

Unit	Topic	No. of Hours (15)
1	Basic plant physiology relevant to hydroponics Essential nutrients and their role in plant growth Nutrient solutions: Preparation and management pH and EC balancing in hydroponic systems Water quality management and filtration techniques in hydroponic system	15

Practical/Lab Course BOT SEC H 2P

Unit	Topic	No. of Hours (30)
1	Preparing and adjusting nutrient solutions for hydroponic farming	30

	Testing and adjusting pH and EC levels	
	Identifying nutrient deficiencies and toxicities	
	To know about setup preparation of different hydroponic system	

	Skill Enhancement Course: Hydroponics III
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No. of Hours- 45

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the Course			Eligibility criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical/Practice		
Hydroponics III	2	1	0	1		Nil

Skill Enhancement Courses in Botany		
Programme : Skill Enhancement Courses in Botany		Year: II Semester: III
Subject: Botany		
Course: BOT SEC H 3	Hydroponics III	

Credits: 2	Skill Enhancement Course
Max. Marks: As per Univ. rules	Min. Passing Marks: As per Univ. rules

Unit	Topic	No. of Hours (15)
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1	Designing small-scale and commercial hydroponic farms Management of environmental factors: Light, temperature, humidity, and CO2 management Water and nutrient recirculation techniques Common pests and diseases in hydroponics and their management	15
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Practical/Lab Course BOT SEC H 3P

Unit	Topic	No. of Hours (30)
1	Designing and assembling a hydroponic system Installing and maintaining environmental control systems System maintenance and troubleshooting Pest and disease identification and their management	30

Skill Enhancement Course: Hydroponics IV

No. of Hours- 45

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the Course			Eligibility criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical/Practice		
Hydroponics IV	2	1	0	1		Nil

Skill Enhancement Courses in Botany		
Programme : Skill Enhancement Courses in Botany		Year: II Semester: IV
Subject: Botany		
Course: BOT SEC H 4	Hydroponics IV	

Credits: 2	Skill Enhancement Course
Max. Marks: As per Univ. rules	Min. Passing Marks: As per Univ. rules

Unit	Topic	No. of Hours (15)
1	Selection of crops suitable for hydroponic cultivation Propagation and transplanting techniques in hydroponic system. Growth cycles and yield optimization Vertical farming techniques and urban hydroponics Organic hydroponics and sustainable practices	15

Practical/Lab Course BOT SEC H 4P
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Unit	Topic	No. of Hours (30)
1	Growing leafy green vegetables, herbs, and fruiting plants in hydroponic systems Implementing vertical farming techniques Experiments related to organic hydroponic solutions	30

	Intercropping and mixed cropping in hydroponics	
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	Skill Enhancement Course: Hydroponics V
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No. of Hours- 45

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the Course			Eligibility criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical/Practice		
Hydroponics V	2	1	0	1		Nil

Skill Enhancement Courses in Botany		
Programme : Skill Enhancement Courses in Botany		Year: III Semester: V
Subject: Botany		
Course: BOT SEC H 5	Hydroponics V	

Credits: 2	Skill Enhancement Course
Max. Marks: As per Univ. rules	Min. Passing Marks: As per Univ. rules

Unit	Topic	No. of Hours (15)
1	Market value of hydroponic farming Market analysis and business planning Cost-benefit analysis for setting a Hydroponic system Branding, marketing, and selling hydroponic produce Certification and regulatory guidelines for hydroponic produce	15

Practical/Lab Course BOT SEC H 5P
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Unit	Topic	No. of Hours (30)
1	Creating a business plan for a hydroponic farm Market research and analysis - Packaging, labeling, and pricing strategies Visit to a commercial hydroponic farm	30

Skill Enhancement Course: Hydroponics VI

No. of Hours- 45

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the Course			Eligibility criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical/Practice		

Hydroponics 6	2	1	0	1		Nil
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Skill Enhancement Courses in Botany		
Programme : Skill Enhancement Courses in Botany	Year: III	Semester: VI
Subject: Botany		
Course: BOT SEC H 6	Hydroponics VI	

Credits: 2	Skill Enhancement Course
Max. Marks: As per Univ. rules	Min. Passing Marks: As per Univ. rules

Unit	Topic	No. of Hours (15)
1	Government schemes and subsidies in Hydroponic farming Recent trends and innovations in hydroponics Research methodologies in hydroponic agriculture Climate-resilient hydroponic farming techniques Policy and future prospects of hydroponics	15

Practical/Lab Course BOT SEC H 6P
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Unit	Topic	No. of Hours (30)
1	Preparation of a business plan for Hydroponic farming system Interactions with successful Hydroponic farmers Developing a prototype hydroponic system	30

	Internship/industrial training in hydroponics	
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Suggested Readings

- Jr. Jones, J.B. (2014). Complete guide for growing plants hydroponically, CRC Press, London.
- Hasan, M., Sabir, N., Singh, A.K., Singh, M.C., Patel, N., Khanna, M., Rai, T., Pragnya, P. (2018). Hydroponics Technology for Horticultural Crops, Tech. Bull. TB-ICN 188/2018. Publ. by I.A.R.I., New Delhi-110012 INDIA.

Skill Enhancement Course: Nursery Development and Floriculture-I

No. of Hours- 45

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the Course			Eligibility criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical/Practice		
Nursery Development and Floriculture-I	2	1	0	1		Nil

Skill Enhancement Courses in Botany

Programme : Skill Enhancement Courses in Botany	Year: I	Semester: I
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Subject: Botany	
Course: BOT SEC NF1	Nursery Development and Floriculture-I
Course Outcomes: The successful students will be able to: 1. Develop conceptual of nursery and gardening. 2. Gain knowledge about developing commercial enterprise of nursery. 3. Develop conceptual skill about floriculture. 4. Gain knowledge about developing commercial enterprise of commercial floriculture.	

Credits: 2	Skill Enhancement Course
Max. Marks: As per Univ. rules	Min. Passing Marks: As per Univ. rules

Unit	Topic	No. of Hours (15)
1	Introduction to Nursery & Floriculture Types of Nurseries Basic plant Classification & Nomenclature Importance of Soil & Water in Nursery Management Common Nursery Tools & Equipment	15

Practical/Lab Course BOT SEC NF 1P

Unit	Topic	No. of Hours (30)
1	Site Selection and Layout Planning for nursery development	30

	Soil Preparation and Bed Making Seed Sowing and Germination Techniques Identification & Use of Tools used in Nursery Basic Watering & Irrigation Methods	
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Skill Enhancement Course: Nursery Development and Floriculture-II

No. of Hours- 45

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the Course			Eligibility criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical/Practice		
Nursery Development and Floriculture-II	2	1	0	1		Nil

Skill Enhancement Courses in Botany

Programme : Skill Enhancement Courses in Botany		Year: I	Semester: II
Subject: Botany			
Course: BOT SEC NF 2	Nursery Development and Floriculture-II		

Credits: 2	Skill Enhancement Course
Max. Marks: As per Univ. rules	Min. Passing Marks: As per Univ. rules

Unit	Topic	No. of Hours
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		(15)
1	Methods of Plant Propagation Seed Propagation & Its Importance Vegetative Propagation (Cutting, Grafting, Layering) Micropropagation (Tissue Culture Basics) Role of Plant Growth Regulators Factors Affecting Plant Growth Hardening of plants in glass house, mist chamber etc.	15

Practical/Lab Course BOT NF 2P

Unit	Topic	No. of Hours (30)
1	Hands-on Seed Propagation in nursery Grafting & Cutting Techniques Layering & Rooting Media Preparation Use of plant Growth Regulators Hardening & Acclimatization Nursery Hygiene & Sanitation	30

Skill Enhancement Course: Nursery Development and Floriculture- III

No. of Hours- 45

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the Course			Eligibility criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical/Practice		
Nursery Development and Floriculture-III	2	1	0	1		Nil

Skill Enhancement Courses in Botany		
Programme : Skill Enhancement Courses in Botany		Year: II Semester: III
Subject: Botany		
Course: BOT SEC NF 3	Nursery Development and Floriculture-III	

Credits: 2	Skill Enhancement Course
Max. Marks: As per Univ. rules	Min. Passing Marks: As per Univ. rules

Unit	Topic	No. of Hours (15)
1	Nursery Layout Planning & Design Watering, Fertilization & Pest Control in nursery Selection of Planting Material Nursery Commercialization & Market Trends Certification & Quality Control Legal Aspects & Policies in nursery	15

	Practical/Lab Course BOT SEC NF 3P
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Unit	Topic	No. of Hours (30)
1	Setting Up a Small Nursery Drip Irrigation & Fertilization Pest & Disease Control of plants Maintenance & Pruning, Labeling & Packaging of Plants Visit to a local commercial Nursery	30

	Skill Enhancement Course: Nursery Development and Floriculture- IV
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No. of Hours- 45

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the Course			Eligibility criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical/Practice		
Nursery Development and Floriculture-IV	2	1	0	1		Nil

Skill Enhancement Courses in Botany		
Programme : Skill Enhancement Courses in Botany		Year: II Semester: IV
Subject: Botany		
Course: BOT SEC H 4	Nursery Development and Floriculture-IV	

Credits: 2	Skill Enhancement Course
Max. Marks: As per Univ. rules	Min. Passing Marks: As per Univ. rules

Unit	Topic	No. of Hours (15)
1	Introduction to Floriculture Importance and scope of floriculture Classification of Ornamental Plants	15

	Cultivation Techniques for some Important Flowers Landscape Designing Principles used in floriculture Greenhouse & Polyhouse Technology	
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Practical/Lab Course BOT SEC NF 4P

Unit	Topic	No. of Hours (30)
1	Growing Flowers in Open & Protected Conditions Designing Flower Beds & Lawns Flower Arrangement & Bouquet Making Greenhouse/Play house Setup for flower production Pest management Visit to a Floriculture Farm	30

Skill Enhancement Course: Nursery Development and Floriculture-V

No. of Hours- 45

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the Course			Eligibility criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical/Practice		
Nursery Development and	2	1	0	1		Nil

Floriculture- V						
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Skill Enhancement Courses in Botany		
Programme : Skill Enhancement Courses in Botany	Year: III	Semester: V
Subject: Botany		
Course: BOT SEC NF 5	Nursery Development and Floriculture- V	

Credits: 2	Skill Enhancement Course
Max. Marks: As per Univ. rules	Min. Passing Marks: As per Univ. rules

Unit	Topic	No. of Hours (15)
1	Harvesting & Post-Harvest Handling of Flowers Storage & Transportation Techniques Dry Flower Technology & Preservation Essential Oils & Their Extraction from flowers Value-Added Products from Flowers	15

	Practical/Lab Course BOT SEC NF 5P
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Unit	Topic	No. of Hours (30)
1	Post-Harvest Handling Techniques Techniques of flower Drying & Preservation Development of value added products from flowers Packaging & Marketing Training in a Floriculture Industry	30

Skill Enhancement Course: Nursery Development and Floriculture- VI

No. of Hours- 45

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the Course			Eligibility criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical/Practice		
Nursery Development and Floriculture- 6	2	1	0	1		Nil

Skill Enhancement Courses in Botany

Programme : Skill Enhancement Courses in Botany			Year: III	Semester: VI
Subject: Botany				
Course: BOT SEC NF 6	Nursery Development and Floriculture- VI			

Credits: 2	Skill Enhancement Course
Max. Marks: As per Univ. rules	Min. Passing Marks: As per Univ. rules

Unit	Topic	No. of Hours (15)
1	Marketing strategies for nursery development and flower production Government schemes and subsidies in nursery development and floriculture Cost-benefit analysis for setting a nursery	15

Practical/Lab Course BOT NF 6P

Unit	Topic	No. of Hours (30)
1	Preparation of Small Nursery Business Plan Market survey on the demand of flowers Liaising with the flower sellers/users Training in a Nursery/Floriculture Startup	30

Suggested Readings

- Agrawal, P.K. (1993). Hand Book of Seed Technology, Dept. of Agriculture and Cooperation, National Seed Corporation Ltd., New Delhi.
- Bose T.K. and Mukherjee, D. (1972). Gardening in India, Oxford and IBH PublishingCo., New Delhi.
- Jules J. (1979). Horticultural Science. (3rd Ed.), W.H. Freeman and Co., San Francisco, USA.
- Kumar, N. (1997). Introduction to Horticulture, Rajalakshmi Publications, Nagercoil.
- Sandhu, M.K. (1989). Plant Propagation, Wile Eastern Ltd., Bangalore, Madras.
- Randhawa, G.S. and Mukhopadhyay, A. (1986). Floriculture in India. Allied Publishers.