



OFFICE OF THE REGISTRAR:: DIBRUGARH UNIVERSITY: DIBRUGARH

Memo No.: DU/DR-A/8-1/20/1089

Date: 18.12.2020

NOTIFICATION

Under Report to the Under Graduate Board, Dibrugarh University, the Hon'ble Vice-Chancellor, Dibrugarh University is pleased to approve the following Syllabi as the 2 Credit Skill Enhancement Courses (SECs) for the B.A., B.Sc. and B.Com. Programmes in the CBCS with immediate effect:

1. Floriculture & Landscaping
2. Sericulture Technology
3. Vermi-compost Technology
4. Entrepreneurship Development
5. Retail Management
6. National Service Scheme (NSS)

In context of the above, the following points are notified for all concerned for the perusal and needful-

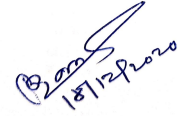
- a) The SECs notified as above may be offered for all Subjects of the B.A., B.Sc. and B.Com. Programmes in the CBCS irrespective of Honours and Non-Honours as per the prescribed Course Structure.
- b) All Subjects of the SECs consist of 2 Courses with 2 Credit each. Course 1 should be offered either in 3rd Semester or in 5th Semester, whereas Course 2 should be offered in 4th or 6th Semester Classes.
- c) The Colleges/ Institutes shall offer the SECs according to their strength and feasibility.
- d) The Approved Syllabi of the remaining SECs will be sent by the University very soon.

Issued with due approval.

(Dr. B.C. Borah)
Joint Registrar (Academic)
Dibrugarh University

1. The Vice-Chancellor, D.U. for favour of information.
2. The Deans, Dibrugarh University.
3. The Registrar, D.U. for favour of information.
4. The Controller of Examinations, DU, for favour of information and necessary action.
5. The Director, IQAC, Dibrugarh University for information and needful.
6. The Director, College Development Council, D.U. for favour of information.

7. The Director i/c, Directorate of Open and Distance Learning, D.U. for favour of information.
8. All Heads and Chairpersons of the Teaching Departments and Centres for Studies, D.U. for favour of information.
9. The Principals/ Directors of the Colleges/ Institutes affiliated to/ permitted by Dibrugarh University offering BA, B.Sc. and B.Com. Programmes in CBCS for information and needful.
10. The Joint Registrar (Admn.) D.U. for favour of information and needful.
11. The Joint/Deputy Controllers of Examinations (C & A), D.U. for favour of information.
12. The Academic Officer, Dibrugarh University, for information.
13. The Programmer, D.U. for kind information and with a request to upload the Notification in the University website for all concerned.
14. File



(Dr. B.C. Borah)
Joint Registrar (Academic)
Dibrugarh University



OFFICE OF THE REGISTRAR:: DIBRUGARHUNIVERSITY:DIBRUGARH

**The Syllabuses of the
Skill Enhancement Courses for the BA, B.Sc. and B.Com Programmes in the CBCS
(For All Subjects of All Streams including both Honours and Non-Honours)**

(Approved by the Hon'ble Vice-Chancellor, Dibrugarh University under report to the Under Graduate Board, Dibrugarh University)

Reference: D.U. Notification vide Memo No.: DU/DR-A/8-1/20/1089 dated 18.12.2020

This Notification contain Syllabuses of-

1. Floriculture & Landscaping
2. Sericulture Technology
3. Vermi-compost Technology
4. Entrepreneurship Development
5. Retail Management
6. National Service Scheme (NSS)

1. Subject: Floriculture & Landscaping

Course Structure

Course Code	Title	Type	Marks		
			I.A.	End Sem.	Total
SEC -I	Basics of Floriculture	Theory	10	40	50
SEC- II	Harvesting, Post Harvesting and Commercial Floriculture	Theory	10	40	50
Total					100

Course Title: Basics of Floriculture (Theory)

Course Code: SEC – I

Credit: 2

Total Marks: 50 (10 for Internal Assessment & 40 for End Semester Examination)

Unit I: Origin of floriculture, definition, history, principles, scope and significance; nomenclature and identification of floricultural plants

Unit II: Methods of propagation: seeds and vegetative (cutting, layering and grafting). Cut flowers, its arrangement, vase life and concept of Bonsai.

UnitIII: Nutrient & pest management: Micro and macro nutrients, media for propagation- soil, sand, peat, sphagnum moss, vermiculite, soil moisture and nursery beds, Manure: organic and inorganic; Irrigation and watermanagement; Identification of major insect pests and diseases of floricultural crops and their control by chemicals and bio-control agents.

Course Title: Harvesting, Post Harvesting and Commercial Floriculture

Course Code: SEC II

Credit: 2

Total Marks: 50 (10 for Internal Assessment & 40 for End Semester Examination)

UnitI: Post harvest handling- crop loading, maturity indices, harvesting methods, grading and sorting, preservation and packing methods for different flowers, quarantine and regulatorymeasures.

Unit II: Commercial floriculture- cultivation practices of common floricultural crops – Gladioli, rose, Canna, Marigold, Dahlia, Tube rose, Chrysanthemum. *In vitro* culture and floriculture.

Unit III: Post harvest technology- transportation and marketing, commercialization of the products; propagation, storage and transport of flowers (e.g. Rose, Lilium, Anthurium etc.), seeds andbuds.

Books recommended for Floriculture:

1. Gardening in India - Bose T. K. andMukherjee
2. Text-Book of Horticulture - Rao K.M.
3. Floriculture in India - Randhawa, G.S. &Mukhopadhyay.
4. Des Raj (2002). Floriculture and Landscaping. 1st Edition,Kalyani Publishers, Ludhiana,India.
5. Complete Gardening in India – 2009- Gopaldaswami lyenger ICAR, NewDelhi.
6. Introduction to Ornament Horticulture by Dr. J.S.Arora.
7. Flowers and Trees- 2008- M.S. Randhawa - National Book Trust – NewDelhi.
8. Hartmann, H.D., Kester, D.E., Davies Jr. F.T., and Geneve, R.L.,(1997). Plant Propagation. Principles and Practices. Prentice-Hall India Pvt. Ltd. NewDelhi.

Basic requirements for conducting the Skill Based Course on Floriculture:

a. Tools & Equipments:

1. Kassi /Spade
2. Khurpi.
3. Handhoe
4. Saw
5. Watering Can.
6. Rose Can.
7. Grass Cutter.
8. Budding & Grafting Knives
9. Secateur
10. Forceps
11. Buckets
12. Edge Cutter
13. Tree Pruner

b. Farm Structures

1. Small plot of land for nursery
2. Green House 01no.(Small)
3. Poly House 01no.(Small)
4. Farm Equipment
5. Hand Sprayer (Small).
6. Hand Gloves
7. Balance 01no.
8. Sieve / Stainer 02nos.
9. Grass Mower 01no.

c. Laboratory Equipment

1. Refrigerator 01no.
2. Glass Wares Beakers 05 nos.
3. Measuring Cylinder 05nos.
4. Chemicals
5. Growth regulators:
6. Accessories for flower arrangement
7. Different types of flower containers as required
8. Flower vases as required
9. Pin holder as required, etc.

2. Subject: Sericulture Technology

Course Structure

Course Code	Title	Type	Marks		
			I.A.	End	Total
SEC - I	Introduction to Sericulture and pre Harvest technology.	Theory	10	40	50
SEC - II	Post Harvest Technology and Entrepreneurship in Sericulture.	Theory	10	40	50
Total					100

Course Code: SEC-I

Credit: 2

Subject: Sericulture and Pre Harvest Technology

Total Marks: 50 (10 for Internal Assessment & 40 for End Semester Examination)

Unit I:

Meaning, aspects and scopes of Sericulture.

Origin of Sericulture, Sericulture practices- India and abroad.

Unit II:

Types and Cultivation practices of Mulberry and non-mulberry host plants in India. Methods of propagation of host plants: (Mulberry, Som, Castar, kesseru) seeds and vegetative (cutting, layering and grafting). Identification, classification, symptom and management of pests and diseases of host plants: Red rust, Root knot, Gall insects, Aphids. Soil preparation: Micro and macro nutrients, Manure: organic and inorganic; moisture content, irrigation and water management .Establishment of sericulture garden: Raising & Maintenance of Nursery & Garden, Mechanization of sericulture farming.

Unit III:

Silkworm species, Life cycle of silkworms (Eri, Muga, and Mulberry).

Silkworm Diseases: Types (Protozoan, Viral, fungal and bacterial) symptoms, prevention and management.

Silkworm Pests: Parasitoids dismested beetles, mammals symptoms and management. Rearing technology of mulberry and non-mulberry silkworms: Preparation and maintenance of Silkworm Rearing House, disinfection. Seed preparation, Incubation, Chawki Rearing, Late Age Rearing.

Course Code: SEC-II

Credit: 2

Subject: Post Harvest Technology and Entrepreneurship in Sericulture.

Total Marks: 50(10 for Internal Assessment & 40 for End Semester Examination)

Unit I:

Post harvest technology: Cocoon quality, classification, sorting, price fixing storage, deflossing and cooking of cocoons. Cocoon processing and reeling operation: Reeling, re-reeling, spinning, silk examination, bleaching, dyeing; reeling appliances – charaka, cottage basin, multi-end silk reeling machine byproducts of reeling, silk fabrics

Unit II:

Employment & Entrepreneurship in sericulture, - Scopes of employment in sericulture; Women in sericulture, Sericulture & Rural Economy. Sericulture organization in India and Assam; role of state departments of Sericulture, Central silk Board, Universities and NGOs in Sericulture development.

Unit III:

Preparation of viable project: skill to plan and develop, and startup.

Books recommended:

1. FAO Agricultural service Bulletin.
2. Muga silk Industry, by S. Choudhury. Directorate of Sericulture, Assam.
3. Eri silk Industry, by S. Choudhury, Directorate of Sericulture, Assam.
4. Mulberry silk Industry. Directorate of Sericulture, Assam.
5. Applied Entomology, by G. Fenemore and Alka Prakash. New Age International (P)

Limited, publishers.

6. Principles of Insect pest management, by G.S.Dhaliwal and Ramesh Arora. Kalyani Publishers.
7. The silkworm biology, genetics and breeding, by Dilip De Sarker. Vikash Publishing House PVT.LTD.
8. Economic Zoology, by Shukla and Upadhaya. Rastogi publications.
9. Report on the diseases of Silkworms in India, by A. Pringle Jamson. International Books & Periodicals SupplyService.
10. Sericulture and Pest Management. Sathe, A. Jadhav, T.V. Sathe, T V & A D Jadhav. Daya Books.
11. Handbook on Pest and Disease Control of Mulberry and Silkworm. Pradip Kumar, Murthuza Baig, K. Sengupta, Govindaiah, UN.ESCAP.

3. Subject: VERMICOMPOST TECHNOLOGY

Course Structure

Course Code	Title	Type	Marks		
			I.A.	End Sem.	Total
SEC-I	Basics of Vermicomposting	Theory	10	40	50
SEC-II	Vermicompost Technology	Theory	10	40	50
Total					100

Course Title: Basics of Vermicompost

Course Code: SEC-I

Credit: 2

Total Marks: 50 (10 for Internal Assessment & 40 for End Semester Examination)

Unit I:

Introduction to vermiculture: history, economic importance including environmental issues. The matter and humus cycle (product, qualities). Ground population, transformation process in organic matter. important, their value in maintenance of soil structure, role as four r's of recycling reduce, reuse, recycle, restore.

Unit II:

The species of earthworms; local species of earthworms, choosing the right and useful earthworm. Biology of *Eisenia fetida*: a) taxonomy anatomy, physiology and reproduction of Lumbricidae. b) Vital cycle of *Eisenia fetida*: alimentation, fecundity, annual reproducer potential and limiting factors (gases, diet, humidity, temperature, P^H, light, and climatic factors). Complementary activities of auto evaluation.

Unit III:

Biology of *Eudrilus eugeniae*:
a) taxonomy anatomy, physiology and reproduction of Eudrilidae.
b) Vital cycle of *Eudrilus eugeniae*: alimentation, fecundity, annual reproducer potential and limiting factors (gases, diet, humidity, temperature, P^H, light, and climatic factors). Complementary activities of autoevaluation.

Course Title: Vermicompost Technology

Course Code: SEC-II

Credit: 2

Total Marks: 50 (10 for Internal Assessment & 40 for End Semester Examination)

Unit I:

Small scale Vermicomposting for home gardens, vermicomposting in commercial scale- vermiculture, harvest, vermicomposting harvest and processing

Unit II:

Nutritional composition of vermicompost, comparison with other fertilizers, Vermiwash collection, composition & use. Enemies and sickness of earthworms, frequent problems of earthworms, identification of problems and their remedies. Complementary activities of auto evaluation.

Unit III

Key to identify different types of earthworms.
Preparation of vermibeds, maintenance of vermin compost & climatic conditions.
Harvesting, packaging, transport and storage of Vermicompost and separation.

Books recommended:

1. Vermis & Vermitechnology by Arvind Kumar, A.P.H.Pub., New Delhi-110002.
2. Earthworms-Vermi culture & Vermicomposting by R. K. Bhatnagar & R. K. Palta, Kalyani Pub, New Delhi, Kolkotta, Hyderabad.
3. A hand book of organic farming by A. K. Sharma, Agrobios (India), Jodhpur
4. A handbook of soil, fertilizer and manure by P. K. Gupta, Agrobios (India), Jodhpur
5. Organic farming in India-problems and practice by U. Thapa & P. Tripathy, Agro pub. Academy, Udaipur-313002
6. Organic Farming for sustainable agriculture by A. K. Dahama, Agrobios(India), Jodhpur
7. Organic Farming – theory and practice by SP. Palaniappan & K. Annadurai, Scientific Pub. (India), Jodhpur.
8. Organic Farming in India by S. S. Purohit & Dushyant Gehlot, Agrobios (India), Jodhpur
9. Role of earthworms in agriculture by J.V.Bhatt & S.R. Khambata, ICAR, New Delhi.
10. Quantitative analysis of waters, fertilizers, plants and soils by U.S.Sree Ramulu, Scientific Pub. Jodhpur.

4. SUBJECT: ENTREPRENEURSHIP DEVELOPMENT

Course Title: Entrepreneurship Development-I

Course Code: SEC-I

Credit: 2

Total Marks: 50 (10 for Internal Assessment & 40 for End Semester Examination)

Unit – I : The Entrepreneur:

1.5 Definitions

1.6 Who is an entrepreneur?

1.7 Functions of an Entrepreneur 10

Unit – II : Entrepreneur and Entrepreneurship: 2.1 Entrepreneur vs. Manager

2.3 Traits of entrepreneurs

2.4 Entrepreneur and enterprise 10

Unit – III : Theories of Entrepreneurship:

3.1 Theories of Entrepreneurial origin

3.2 Theory of Invisible cost

3.3 Theory of Transition cost. 15

Unit – IV : Entrepreneurial Development Programmes in India:

4.1 Relevance and achievements*

4.2 Role of Government*

4.3 Role of NGOs.* 15

* The discussion should be with special reference to North East India in general and Assam in particular.

Suggested Reading:

1. Khanka S.S. : Entrepreneurial Development, S.Chand & Company, New Delhi.
2. Desai Vasant : Dynamics of Entrepreneurial Development, Himalaya Publishing House, Mumbai.
3. Bezborah P. & Barman M.C. : Udyamita Bikas. Ashok Book Stall, Panbazar Guwahati

Course Title: Entrepreneurship Development-II

Course Code: SEC-II

Credit: 2

Total Marks: 50 (10 for Internal Assessment & 40 for End Semester Examination)

Unit – I : Promotional Agencies

- 1.1 Types of Entrepreneurial Development Promotional Agencies
- 1.2 Ideologies of these agencies
- 1.3 Governmental vs Non governmental Agencies 10

Unit – II : Institutional Support:

- 2.1 Micro, Small and Medium Enterprises Development Organization (MSMEDO)
- 2.2 Micro, Small and Medium Enterprises Development Institution (MSMEDI)
- 2.3 District Industries and Commerce Centre (DICC)
- 2.4 Khadi and Village Industries Commission/Board (KVIC/KVIB) 20

Unit – III : Role of other Supporting Institutions:

- 3.1 NEDFi*
- 3.2 SIDBI/IDBI*
- 3.3 IIE* 3.4 Micro Finance Institutions* 20

* The discussion should be with special reference to North East India in general and Assam in Particular.

Suggested Reading:

1. Khanka S.S. : Entrepreneurial Development, S.Chand & Company, New Delhi.
2. Desai Vasant : Dynamics of Entrepreneurial Development, Himalaya Publishing House, Mumbai.
3. Bezborah P. & Barman M.C. : Udyamita Bikas. Ashok Book Stall, Panbazar Guwahati

5. SUBJECT: RETAIL MANAGEMENT

Course Title: Retail Management I

Course Code: SEC-I

Credit: 2

Total Marks: 50 (10 for Internal Assessment & 40 for End Semester Examination)

Unit – I Retailing –

1.1 Concept and Evolution,

1.2 A Comparison between Global and Indian Scenario.

1.3 Nature and Importance of Retailing 10

Unit – II Retailing & Distribution Channels-

2.1 Retailing and Wholesaling.

2.2 Position of Retailing in the Channels of Distribution.

2.3 Role and Scope of Retailing. 10

Unit – III Types of Retailing –

3.1 Store based and Non-store based.

3.2 Vertical Marketing System.

3.3 Retailing Life Cycle. 20

Unit – IV Retailing in India-

4.1 Growth and Status of Retailing in India.

4.2 Successful Retailing Formats in India. 10

Suggested Reading:

1. Bhalla : Retail Management, DVS Publications, New Delhi.
2. Kapoor & Kansal : Basics of Distribution Management- A logistical Approach, PHI Learning, New Delhi.

Course Title: Retail Management II

Course Code: SEC-II

Credit: 2

Total Marks: 50 (10 for Internal Assessment & 40 for End Semester Examination)

Unit – I Inventory and Merchandising-	
1.1 Supply Chain Management in Retailing,	
1.2 Product Assortment Decisions.	
1.3 Merchandise Forecasting.	
1.4 Buying and Handling Merchandise.	
1.5 Merchandise Labelling.	
1.6 Pricing and Packaging.	
1.7 Inventory Management.	20
Unit – II Financial Management-	
2.1 Credit Management,	
2.2 Finance and Accounts in Retailing,	
2.3 Modes of Payment.	10
Unit – III Promotion Management-	
3.1 Retail Store Promotion Schemes.	
3.2 Building Retail Store Image.	
3.3 Offers, Discounts and Schemes.	
3.4 Customer Relationship Management.	
3.5 Retail Promotion Mix.	10
Unit – IV Controlling-	
4.1 Controlling Retail Operations,	
4.2 Trade Licenses	
4.3 Legal Implications of Retailing.	10

Suggested Reading:

1. Bhalla : Retail Management, DVS Publications, New Delhi.
2. Kapoor & Kansal : Basics of Distribution Management- A logistical Approach, PHI Learning, New Delhi.

SUBJECT: NATIONAL SERVICE SCHEME (NSS)

The NSS subject will be offered in the undergraduate programmes of Dibrugarh University as skill based courses with two courses. The total credits will be 4 (each course will be of 2 credits each). It has been developed on the lines of the UGC regulations for Skill Based Courses. The objectives of the NSS (Skill Based Courses) are:

1. To enable NSS volunteers at the undergraduate level to undergo a formal course of study so as to supplement their voluntary work.
2. To equip NSS volunteers with some necessary skills to volunteer better.
3. To help NSS volunteers to look for other avenues of livelihood in the form of entrepreneurial ventures.

Course Code: NSS01

Credit: 2

Course Title: NSS and Youth Development

Objectives : The main objectives of this course are:

1. To help learners know about NSS in the context of youth, community and voluntary service.
2. To appreciate the importance of health, hygiene and sanitation for a healthy nation.
3. To propagate Yoga as a way of healthy living.

Credit : 2 (1 – 0 – 1)

Outcome : Learners will have the knowledge about NSS and its role in the fields of health, hygiene and sanitation so as to build a strong country. They will be able to use Yoga for healthy living.

Unit	Topics	Contact Hours		
		Lectures	Tutorials	Practical
1	Introduction to NSS History, philosophy, aims and objectives of NSS; NSS Insignia, Organization of NSS, Funding; Regular Activities; Special Camping; Adopted village; Maintaining records, Collaboration with other Govt. agencies, NGOs	2	0	0
2	Life Competencies & Youth Leadership Definition and importance of life competencies; communication and soft skills; Using the Internet; Youth leadership	3	0	0
3	Health, Hygiene and Sanitation Importance of health, hygiene and sanitation; Various Govt. programmes	2	0	5
4	Youth Health Healthy lifestyles; HIV/AIDS, drugs and substance abuse; First aid	2	0	5
5	Youth and Yoga History and philosophy of yoga; Yoga for healthy living	2	0	12

Total Lectures: 11

Project: 22 hours of community/volunteer work promoting the issues as mentioned in Units 3, 4 and 5. *The internal assessment will be based on the project.*

Suggested Readings:

1. NSS Manual
2. National Youth Policy Document
3. National Service Scheme - A Youth Volunteers Programme For Under Graduate Students As Per UGC Guidelines by J D S Panwar, A K Jain & B K Rathi (Astral)
4. Communication Skills by N Rao & R P Das (HPH)
5. Light on Yoga by B K Iyenger (Thorsons)

Course Code: NSS02
Credit: 2
Course Name: NSS in Social-economic Development

Objectives : The main objectives of this course are:
 1. To help learners know about environmental issues and disaster management.
 2. To understand the role of entrepreneurship in social development.
 3. To learn documentation and reporting.

Credit : 2 (1 – 0 – 1)

Outcome : Learners will learn to appreciate the concerns regarding the environment. They will have the background information to start a venture. They will also be able to prepare a socio-economic development plan.

Unit	Topics	Contact Hours		
		Lectures	Tutorials	Practicals
1	Environment Issues Environment conservation, Enrichment and Sustainability; Climate Change; Waste Management; Natural Resource Management	2	0	0
2	Disaster Management Introduction; Classification of disasters; Role of NSS in disaster management with more emphasis on disasters specific to NE India; Civil defence	3	0	0
3	Entrepreneurship Definition and meaning; Qualities of a good entrepreneur; Risks; Various policies aiding an entrepreneur	2	0	0
4	Funding a Venture Sources of funding and formalities	2	0	0
5	Documentation and Reporting Collection and analysis of data; Documenting, reporting and their dissemination	2	0	22

Total Lectures: **11**

Project: Developing a socio-economic development plan for a selected locality requiring at least **22 hours** of work. *The internal assessment will be based on the document that is prepared.*

Suggested Readings:

1. Biodiversity, Environment and Disaster Management by Shamna Hussain (Unique Publishers)
2. Environmental Studies by P K Pandey (Mahaveer Publications)
3. Fundamentals of Entrepreneurship by H Nandan (PHI)
4. Guide to Report Writing by Michael Netzley and Craig Snow (Pearson)