

Syllabus For Quality Silk Yarn Producer

Course Name	Quality Silk Yarn Producer
Sector	Apparel, Made-UPS & Home Furnishing
Course Code	APL/2024/QSYP/340
Level	3
Occupation	Quality Silk Yarn Producer
Job Description	After successful completion of the training a trainee can get a employment at Silk Yarns production units under Textile & Handloom Sector. Finally, He / She may become a successful Entrepreneur with help of Govt. assistances from DIC or Self-help group & S E Dept. for production of the best quality Silk Yarns and fulfils his/her ambition in life.
Course Duration	Total Duration 390 Hrs (T-60, P-210, OJT-60 and ES-60)
Trainees' Entry Qualification	Grade 10 OR Grade 8 pass and pursuing continuous schooling in regular school with vocational subject OR 8th grade pass with 2 yrs relevant experience OR 5th grade pass with 5 years relevant experience OR Previous relevant Qualification of NSQF Level 2 with one year experience OR Previous relevant Qualification of NSQF Level 2.5 with 6 months experience
Trainers Qualification	Class VIII Pass and above with at least 10 yrs. working experience in the field of production of Quality Silk Yarn.

Structure of Course:

Module No.	Module name	Outcome	Compulsory/ Elective	Theory (Hrs)	Practical (Hrs)	OJT (Hrs.)	Total (Hrs) [Multiple of 30]
1	Workplace safety & Personal hygiene	Apply safe working practices	Compulsory	10	20		30
2	Harvest, dry, sort and store Cocoon.	Identify the stages for cocoon harvesting techniques, draying , sorting and storage methods	Compulsory	-	30		30
3	Cocoon cooking.	Demonstrate Cocoon cooking process with adjustment of cocoon quality	Compulsory	10	20		30
4	Reeling hot water	Conduct Reeling hot	Compulsory	-	30		30

	treatment.	water treatment and degumming of Silk Yarns					
5	Working of reeling machine	Operate various reeling and reeling machine	Compulsory	30	60		90
6	Skein and Booking Process	Demonstrate Skein making & Booking process of Skein	Compulsory	10	20		30
7	Preserve raw Silk Yarns.	Describe the process of preservation of raw silk yarns in store	Compulsory	-	30		30
8	OJT	Work in real job situation with special emphasis on basic safety and hazards in this domain (OJT).	Compulsory	--	--	60	60
9	Employability Skill	As per guided curriculum	Compulsory	60	--		60
TOTAL:				120	210	60	390

SYLLABUS:**Module No. 1: Workplace safety & Personal hygiene**

Outcome: Apply safe working practices

Theory Content:

- Importance of safety and general precautions.
- Introduction to work place, work ethics, discipline.
- Discussion on workplace hygiene, sanitation, safety procedures and personal hygiene at work place.

Practical Content:

- Practice and day-to-day caring of safety of work place & store and personal hygiene and sanitation.

Module No. 2: Harvest, dry, sort and store Cocoon.

Outcome: Identify the stages for cocoon harvesting techniques , draying , sorting and storage methods

Content:

- Knowledge about Cocoon classification system, sorting of Cocoons and storage procedures and conditions for sorted Cocoons

- Checking of differences in Cocoon quality for same batch.
- Checking of Environmental conditions.
- Harvesting and handling of fresh Cocoons. Cocoon Mixing,
- Process of killing Silk worm and drying of Cocoons : Sun exposure, Water vapour exposure and Dry heat exposure with use of machine dryer. Know minimum number of days to complete drying process of Cocoons for a batch.
- Practical work for sorting of defective Cocoons which are not suitable for reeling.
- Know Storage procedure of sorted dried Cocoons at controlled temperature and humidity room safely. Save Cocoon stocks from fungus attacks.

Module No. 3: Cocoon cooking

Outcome: Demonstrate Cocoon cooking process with adjustment of cocoon quality

Content:

- Know about Cocoon cooking process with adjustments according to variation of Cocoon quality
- Practical learning work for Cocoon cooking methods.
- Pan cooking at right temperature.
- Machine cooking : Function of different parts like Cocoon hopper, socking part, Temp. controller, cooking/boiling part, Adjusting part & Cocoon outlet part.

Module No. 4: Reeling hot water treatment.

Outcome: Conduct Reeling hot water treatment and degumming of Silk Yarns

Content:

- Knowledge about water characteristics such as hardness, alkalinity, pH & conductivity etc
- Practical learning of measurement of water hardness, alkalinity and pH values etc.
- Practical work for Reeling hot water treatment and degumming of Silk Yarns

Module No 5. : Working of reeling machine

Outcome: Operate various reeling and reeling machine

Theory Content:

- Different types of Reeling Machine, Know about Functions of Reeling Machine and it's parts.
- Knowledge about Reeling process and solving methods of difficulties.

- Knowledge about Knot Binding, Book making and Skein.
- Knowledge about Re-reeling machine and function of its different machine parts. Know how to change different Re-reeling machine parameters

Practical Content:

- Demo. of Reeling Machines in working condition and function of parts of Machine. setting up different parameters of Reeling machine and checking of outputs.
- Practical learning work of Reeling of Yarns with different types of Reeling devices : Hand spinning wheel, Charka type, Sitting type reeling machine, Multi-ends reeling machine and Automatic reeling machine.
- Practical learning work for Knot Binding & Booking of Skeins,
- Standardization of Skein size and Packing a lot etc.
- Practical learning about Re-reeling machine, Re-reeling process of raw Silk Yarns, Pre-treatment by Bath, Infiltration or Damping methods. Dipping during Re-reeling process

Module No. 6: Skein and Booking Process

Outcome: Demonstrate Skein making & Booking process of Skein

Content:

- Knowledge about Skeining and Booking processes.
- Practical learning work for Skein making & Booking process of Skein.
- Practical learning of Silk end tying & Standardization of Skein lacing size and Packing a lot etc

Module No. 7: Preserve raw Silk Yarns.

Outcome: Describe the process of preservation of raw silk yarns in store

Content:

- Knowledge about name of repellents used for preservation
- Practical learning of Preservation of Raw Silk Yarns in store at controlled temperature and humidity Prevention measures from attacks of any fungus.

Module 8 : OJT

Outcome: Work in real job situation with special emphasis on basic safety and hazards in this domain

Practical Content:

Assessor will check report prepared for this component of Practical training of the course and assess whether competency has been developed to work in the real job situation with special emphasis on basic safety and hazards in this domain. (The trainee is expected to undertake work in actual workplace under any supervisor / contractor for **60 Hours.**)

Module 9: Employability Skills (60 Hrs)**Key Learning Outcomes****Introduction to Employability Skills**
Hours

Duration: 1.5

After completing this programme, participants will be able to:

1. Discuss the Employability Skills required for jobs in various industries
2. List different learning and employability related GOI and private portals and their usage

Constitutional values - Citizenship
Hours

Duration: 1.5

3. Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen
4. Show how to practice different environmentally sustainable practices.

Becoming a Professional in the 21st Century
Hours

Duration: 2.5

5. Discuss importance of relevant 21st century skills.
6. Exhibit 21st century skills like Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn etc. in personal or professional life.
7. Describe the benefits of continuous learning.

Basic English Skills
Hours

Duration: 10

8. Show how to use basic English sentences for everyday conversation in different contexts, in person and over the telephone
9. Read and interpret text written in basic English
10. Write a short note/paragraph / letter/e -mail using basic English

Career Development & Goal Setting
Hours

Duration: 2

11. Create a career development plan with well-defined short- and long-term goals

Communication Skills

Duration: 5 Hours

12. Demonstrate how to communicate effectively using verbal and nonverbal communication etiquette.
13. Explain the importance of active listening for effective communication
14. Discuss the significance of working collaboratively with others in a team

Diversity & Inclusion
Hours

Duration: 2.5

15. Demonstrate how to behave, communicate, and conduct oneself appropriately with all genders and PwD
16. Discuss the significance of escalating sexual harassment issues as per POSH act.

Financial and Legal Literacy

Duration: 5 Hours

17. Outline the importance of selecting the right financial institution, product, and service
18. Demonstrate how to carry out offline and online financial transactions, safely and securely
19. List the common components of salary and compute income, expenditure, taxes, investments etc.
20. Discuss the legal rights, laws, and aids

Essential Digital Skills

Duration: 10

Hours

21. Describe the role of digital technology in today's life
22. Demonstrate how to operate digital devices and use the associated applications and features, safely and securely
23. Discuss the significance of displaying responsible online behavior while browsing, using various social media platforms, e-mails, etc., safely and securely
24. Create sample word documents, excel sheets and presentations using basic features
25. utilize virtual collaboration tools to work effectively

Entrepreneurship

Duration: 7 Hours

26. Explain the types of entrepreneurship and enterprises
27. Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan
28. Describe the 4Ps of Marketing-Product, Price, Place and Promotion and apply them as per requirement
29. Create a sample business plan, for the selected business opportunity

Customer Service

Duration: 5 Hours

30. Describe the significance of analyzing different types and needs of customers
31. Explain the significance of identifying customer needs and responding to them in a professional manner.
32. Discuss the significance of maintaining hygiene and dressing appropriately

Getting Ready for apprenticeship & Jobs

Duration: 8 Hours

33. Create a professional Curriculum Vitae (CV)
34. Use various offline and online job search sources such as employment exchanges, recruitment agencies, and job portals respectively
35. Discuss the significance of maintaining hygiene and confidence during an interview
36. Perform a mock interview
37. List the steps for searching and registering for apprenticeship opportunities

Learning Outcome – Assessment Criteria

Module No.	Outcome	Assessment Criteria
1	Apply safe working practices	<p>After completion of this module students will be able to:</p> <p>1.1 Articulate key safety principles and their relevance to various job tasks</p> <p>1.2 Describe workplace hygiene and sanitation practices</p> <p>1.3 Implement sanitation measures in personal workplaces</p> <p>1.4 Report safety concerns promptly and accurately</p>
2	Identify the stages for cocoon harvesting techniques , draying , sorting and storage methods	<p>After completion of this module students will be able to:</p> <p>2.1 Demonstrate cocoon classification system</p> <p>2.2 Explain proper sorting techniques for cocoons and storage procedures</p> <p>2.3 Check differences in cocoon quality within the same batch</p> <p>2.4 Conduct practical checks on environmental conditions showcasing the ability to assess and maintain optimal temperature and humidity levels for cocoon storage</p> <p>2.5 Execute proper techniques for harvesting and handling fresh cocoons</p> <p>2.6 Perform storage procedure of sorted, dried cocoons in a controlled environment</p>
3	Demonstrate Cocoon cooking process with adjustment of cocoon quality	<p>After completion of this module students will be able to:</p> <p>3.1 Demonstrate cocoon cooking methods</p> <p>3.2 Perform pan cooking of cocoons at the right temperature</p> <p>3.3 Operate cocoon cooking machine effectively</p> <p>3.4 Explain the function of each part of cocoon cooking machine</p> <p>3.5 Adhere to safety protocols while operating cocoon cooking machine</p>
4	Conduct Reeling hot water treatment and degumming of Silk Yarns	<p>After completion of this module students will be able to:</p> <p>4.1 Measure the water hardness, alkalinity, pH values and conductivity using appropriate tools and equipment</p> <p>4.2 Perform the tasks related to reeling hot water treatment</p> <p>4.3 Conduct degumming process of silk yarns</p>

Module No.	Outcome	Assessment Criteria
		4.4 Demonstrate safe and effective handling of equipment use in the measurement of water characteristics, reeling hot water treatment and degumming
5	Operate various reeling and reeling machine	<p>After completion of this module students will be able to:</p> <p>5.1 Demonstrate the operation of reeling machines in working condition 5.2 Adjust different parameter of the reeling machine 5.3 Demonstrate knot binding and booking skeins 5.4 Explain the pre treatment methods such as bath, infiltration and damping during the re-reeling process 5.5 Implement quality control measure during the task of re-reeling processes</p>
6	Demonstrate Skein making & Booking process of Skein	<p>After completion of this module students will be able to:</p> <p>6.1 Demonstrate skeining and booking processes 6.2 Exhibit silk end tying, showcasing to tie silk ends 6.3 Apply the techniques to ensure the integrity of the silk yarn during the tying process 6.4 Standardize the skein lacing size 6.5 implement proper packing methods</p>
7	Describe the process of preservation of raw silk yarns in store	<p>After completion of this module students will be able to:</p> <p>7.1 Describe preservation techniques to maintain the quality and integrity of silk yarn 7.2 Demonstrate the procedure to prevent fungal attacks on raw silk yarns during the preservation process 7.3 Implement repellent application techniques that align with industry standards and best practices 7.4 Maintain the procedure of record keeping and documentation</p>
8	Work in real job situation with special emphasis on basic safety and hazards in this domain (OJT).	Work in real job situation with special emphasis on basic safety and hazards in this domain (OJT).
9	Employability Skill	As per guided curriculum

List of Tools, Equipment & materials needed for 30 Trainees (Practical)

Sl. No.	Name of Training/Raw Materials	Quantity
1	Cocoon	As required
2	Tinopol	As required
3	Pesticides for protect of Cocoons.	As required
4	Plastic Bag	As required
5	Hand gloves	As required
6	Water	As required

13. List of Tools , Machines & Equipment:

Sl. No.	Name of Tools/Equipment/Machines	Quantity
1	Reeling machine	02 Nos.
2	Woven (Coal/Gas)	02 Nos.
3.	Electric Dry Chamber	01No.
4	Extra reel	30 Nos.
5	Table	02 Nos.
6	Solar water heater (200 lts.)	01 No.
7	Balance Machine	01 No.
8	Iron Rack (Big size)	02 Nos.
9	Cooking Pan	05 Nos.
10	Water tank (500 lts.)	02 Nos.
11	Medium size Boiler	01 No.
12	Basket	10 Nos.
13	Aluminium Cooking Pot	02 Nos.
14	Almirah	02 Nos.

Marks Distribution

Outcome	Outcome Code	Total Th marks	Total Pr marks	Total OJT marks
Apply safe working practices	APL/0315/OC1	30	70	0
Identify the stages for cocoon harvesting techniques, draying , sorting and storage methods	APL/0315/OC2	0	100	0
Demonstrate Cocoon cooking process with adjustment of cocoon quality	APL/0315/OC3	30	70	0
Conduct Reeling hot water treatment and degumming of Silk Yarns	APL/0315/OC4	0	100	0
Operate various reeling and reeling machine	APL/0315/OC5	60	140	0
Demonstrate Skein making & Booking process of Skein	APL/0315/OC6	30	70	0
Describe the process of preservation of raw silk yarns in store	APL/0315/OC7	0	100	0
Work in real job situation with special emphasis on basic safety and hazards in this domain (OJT).	APL/0315/OC8	0	0	150
Employability Skills – 60 Hrs	DGT/VSQ/N0102	50	0	0