

**Syllabus  
For the trade of**

**FOOTWEAR MAKER**  
(SEMESTER PATTERN)

UNDER  
CRAFTSMEN TRAINING SCHEME

Designed in 2013

By

Government of India  
Central Staff Training and Research Institute  
Directorate General of Employment & Training  
Ministry of Labour & Employment  
BLOCK - EN-81, Sector-V, Salt Lake City,  
Kolkata-700091

## List of Members of Trade Committee for the trade of “Footwear Maker”

Sl. No.	Name & Designation S/Sri.	Organisation	Remarks
1.	Deepankar Mallick	Director of Training, DGE&T, New Delhi	Chairman
2.	Sukhdev Singh, Joint Director	ATI- Kanpur	Member
3.	P.N. Yadav, Dy. Director	ATI- Kanpur	Member
4.	S.K.Singh, Principal	Government, Leather Institute Kanpur	Member
5.	Irsad Mirza, Proprietor	Mirza International, Kanpur	Member
6.	D.N.Swami, Lecturer	Govt. Leather Institute Kanpur	Member
7.	Naresh Kumar, Lecturer	Govt. Leather Institute Kanpur	Member
8.	H.S. Nigam, V.I.	ATI Kanpur	Member
9.	P.K. Bhattachyara, Scientist	Central Leather	Member
10.	Suman Chatterjee, lecturer	H.B.T.I. kanpur	Member
11.	Col.S.Haque, Principal	Mirza Foundation	Member
12.	Suresh Kumar, Technician	Mirza Foundation	Member
13.	Suhail Ahmad, Supervisor	Mirza Foundation	Member
14.	Satish Kumar, Senior supervisor	International Ltd.	Member

**List of members attended the Workshop to finalize the syllabi of existing CTS into Semester Pattern held from 6<sup>th</sup> to 10<sup>th</sup> May'2013 at CSTARI, Kolkata.**

<b>Sl. No.</b>	<b>Name &amp; Designation</b>	<b>Organisation</b>	<b>Remarks</b>
1.	R.N. Bandyopadhyaya, Director	CSTARI, Kolkata-91	Chairman
2.	K. L. Kuli, Joint Director of Training	CSTARI, Kolkata-91	Member
3.	K. Srinivasa Rao, Joint Director of Training	CSTARI, Kolkata-91	Member
4.	L.K. Mukherjee, Deputy Director of Training	CSTARI, Kolkata-91	Member
5.	Ashoke Rarhi, Deputy Director of Training	ATI-EPI, Dehradun	Member
6.	N. Nath, Assistant Director of Training	CSTARI, Kolkata-91	Member
7.	S. Srinivasu, Assistant Director of Training	ATI-EPI, Hyderabad-13	Member
8.	Sharanappa, Assistant Director of Training	ATI-EPI, Hyderabad-13	Member
9.	Ramakrishne Gowda, Assistant Director of Training	FTI, Bangalore	Member
10.	Goutam Das Modak, Assistant Director of Trg./Principal	RVTI, Kolkata-91	Member
11.	Venketesh. Ch. , Principal	Govt. ITI, Dollygunj, Andaman & Nicobar Island	Member
12.	A.K. Ghate, Training Officer	ATI, Mumbai	Member
13.	V.B. Zumbre, Training Officer	ATI, Mumbai	Member
14.	P.M. Radhakrishna pillai, Training Officer	CTI, Chennai-32	Member
15.	A.Jayaraman, Training officer	CTI Chennai-32,	Member
16.	S. Bandyopadhyay, Training Officer	ATI, Kanpur	Member
17.	Suriya Kumari .K , Training Officer	RVTI, Kolkata-91	Member
18.	R.K. Bhattacharyya, Training Officer	RVTI, Trivandrum	Member
19.	Vijay Kumar, Training Officer	ATI, Ludhiana	Member
20.	Anil Kumar, Training Officer	ATI, Ludhiana	Member
21.	Sunil M.K. Training Officer	ATI, Kolkata	Member
22.	Devender, Training Officer	ATI, Kolkata	Member
23.	R. N. Manna, Training Officer	CSTARI, Kolkata-91	Member
24.	Mrs. S. Das, Training Officer	CSTARI, Kolkata-91	Member
25.	Jyoti Balwani, Training Officer	RVTI, Kolkata-91	Member
26.	Pragna H. Ravat, Training Officer	RVTI, Kolkata-91	Member
27.	Sarbojit Neogi, Vocational Instructor	RVTI, Kolkata-91	Member
28.	Nilotpal Saha, Vocational Instructor	I.T.I., Berhampore, Murshidabad, (W.B.)	Member
29.	Vijay Kumar, Data Entry Operator	RVTI, Kolkata-91	Member

## GENERAL INFORMATION

1. Name of the Trade : FOOTWEAR MAKER
2. N.C.O. Code No : 801.10
3. Duration : One year (Two Semesters )
4. Power Norms : 4 KW
5. Space Norms : 72 sq. mtrs.
6. Entry Qualification : passed 8<sup>th</sup> class examination
7. Unit Size : 16 Trainees
8. Instructor,s/ Trainer's Qualification :- B.E./B. Tech in Leather Technology with one year experience in the relevant field

**OR**

Three year Diploma in Leather technology or Equivalent from a recognized board /Institution.

**OR**

NTC/NAC in the trade with three years experience in the relevant field

9. Desirable Qualification : Preference will be given to a candidate with CITS in Foot Wear Maker trade.

Note: At least one Instructor must have Degree/ Diploma in Relevant Field

SYLLABUS FOR THE TRADE OF :FOOTWEAR MAKER” UNDER C.T.S

Duration :Six Months

First Semester

Semester Code:MFW: SEM I

<b>WEEK NO.</b>	<b>Trade Practical</b>	<b>Trade Theory</b>
01	Familiarization with the Institute. To make the trainees familiar with the shop discipline, layout of the shop, layout of the machine, equipment, etc. installed in the shop.	Introduction to the trade. Importance of the trade in the development of the industrial economy of the country. <b>Knowledge of General Safety, Occupational health and hygiene.</b>
02	Type of practical training to be followed, maintenance and handling of tools and equipment of the section.	Recreational and medical facilities and extracurricular activities of the Institute (All necessary guidance to be provided to the new comers to become familiar with the working of the Industrial Training Institute system including stores procedures).
03	Practice on safety precautions including fire fighting equipments, Accidents, First Aid practice and treatment.	Knowledge of Safety precautions. Elementary First Aid and treatment. Knowledge of fire fighting appliances.
04	Demonstration with illustration of function of bones, Arches , Joints ligament, problems in human and measurement of human foot.	Anatomy of Human foot:- Name of bones, Arches , Joints ligament, problems in human and measurement of human foot.
05	Practice on wooden last and measurement on the basis of material, design, size and uses.	Wooden last & its measures:- Classification on basis of material, design, size and uses.
06 & 07	Familiarization on measurement of foot and assessing of size, making of “Mean” form and standards	Measurement – its principles and connections as applicable to footwear – Importance of metric system of measurement, Area measurement of leather. Area measurement of patterns, weights and measures.
08-09	Identification and application of different hand tools used in the shop. Indenting of tools from store.	Hand tools used by a trainee in the section, their kinds, uses, names and function, process of holding. Machines employed in general footwear makers’ shops, their nomenclature and description, operational principles and use.
10	Care and maintenance of hand tools and machines. Safety precautions. Its importance, cleanliness of the shops.	Common hand tools used by a Footwear maker. Their kinds, uses and materials from which they are made. Their names and functions.
11 & 12	Sharpening of tools, scissors, knives and other cutting tools, method and process of holding the tools.	Specification of different tools used in footwear manufacture – their nomenclature and description. Sharpening of tools and scissors, knives, awls by hand and machines.

13	Practice on Leather Cutting by hand and machine. Measurement of the leather-hides and skins by different methods.	Stores such as Leather, rubber soles, substitute materials such as synthetic rubber, polyvinyl cloth, polyurethane, thermoplastic rubber.
14 & 15	Practice of using grinding materials, Stitching practice of different types.	Various grinding materials and uses. Choice and purchase of raw materials and sources of supply. Fabric and coated fabrics. Types of stitching threads (cotton, nylon, polyester)
16-19	General maintenance of machines – Brief idea about minor routine maintenance and safety aspect and study of different leather.	Leather – its different sections, their suitability for different purposes, upper leathers skins and defects of leather.
20 - 22	Practice on designing, pattern cutting and template making for different types of footwear such as sports shoe, walking shoe, running shoe, track shoe, field shoe, and safety shoe.	Lasts and their types and standard dimension their variations for different purposes and adaptation for orthopedic work. Lasts and plates. Lasts for deformed feet.
23- 24	Clicking – Economical cutting of upper components and linings. Stitching leather by hand and machine.	Types of clicking - its purpose, its advantage, machines for effective clicking.
25	Project work / Industrial visit (optional)	
26	Examination	

SYLLABUS FOR THE TRADE OF :FOOTWEAR MAKER” UNDER C.T.S

Duration :One Year

Second Semester

Semester Code:MFW: SEM II

<b>WEEK NO.</b>	<b>Trade Practical</b>	<b>Trade Theory</b>
01-03	Closing, skiving and application of different adhesives, folding of upper and assembling of upper and lining components. application such as Natural rubber solution, Rubber latex, Polyurethane adhesives, Neoprene adhesive, hotmelt adhesives, etc. hardner for adhesives, preparation and application, Backing up their leather	Knowledge of edges, seams and their treatment. Seam strength, stitches used in closing upper ornamentation. Adhesives used in footwear, their names and description, different types of adhesives and their application such as Natural rubber solution, Rubber latex, Polyurethane adhesives, Neoprene adhesive, hotmelt adhesives, etc. hardner for adhesives, preparation and application, Backing up their leather.
04-05	Cutting bottom components economically, insole attachment and feathering. Preparation of toe and counter stiffeners. Drafting and lasting.	Sorting and matching cut components according to quality. Economic layout and utilization of different sections for bottom components.
06-09	Welt stitching – Bottom filling, sole attaching and stitching, Heel fixing and finishing, single sole stitching and cemented method of construction. Basic idea about Moulding Machine. Manufacture of moulded shoes.	Direct vulcanizing process and direct injection process. Functions of Moulded machine. Synthetic toe – Puff and Stiffeners, methods of their applications and types of solvent used for the purpose. Feathering – Preparation of stiffeners.
10-11	Practice on Insole preparation, drafting, lasting, sole attaching, sole stitching, welt stitching, bottom filling, heal fixing, finishing.	Insole preparation, drafting, lasting, sole attaching, sole stitching, welt stitching, bottom filling, heal fixing, finishing.
12-13	Finishing of shoes & other articles. Practice on Marks and blemishes – their character and process of removal.	Waxes and polishes used in finishing – their names and application. Marks and blemishes – their character and process of removal.
14-15	Making shoes, safety boots, Industrial Boots to sizes. Making of shoes of latest fashion. Repairing of boots and shoes, half soling, healing, resoling.	Wastage – its proportions and limits. Waste cutting and their utilization. Commercial calculations & theory of industrial boot.
16-17	Exercise on calculation of material consumption, Reduction of wastage, Preparation of cost sheets for finished footwear.	Costing of footwear – Costing method of materials by weight and area.
18-19	Demonstration of Quality control and Inspection of footwear. Testing of footwear and their assessment.	Marketing of finished goods.
20-22	Practice on costs of finished products and their selling prices. Overhead costs and their distribution.	Knowledge of costs of finished products and their selling prices. Overhead costs and their distribution.
23-24	Training on entrepreneur development so that enable the trainees to start his own small scale Industries.	
25	REVISION	
26	Examination	

## TRADE: FOOTWEAR MAKER

### LIST OF TOOLS & EQUIPMENT

#### A. TRAINEES TOOL KIT FOR 16 TRAINEES + ONE

SL. NO.	NAME OF THE ARTICLES	QUANTITY
1.	Wooden Clamps	17 nos.
2.	Awls Welt Stitching	17 nos.
3.	Awls Sole Stitching	17 nos.
4.	Pricking awls	17 nos.
5.	Scissors	17 nos.
6.	Knives rampees	17 nos.
7.	Pinchers	17 nos.
8.	Compasses	17 nos.
9.	Measuring tapes	17 nos.
10.	Shoe hammers	17 nos.
11.	Kit boxes 375 x 250 x 200 mm.	17 nos.
12.	Stone slabs. (Marble/cuddappa)	17 nos.
13.	Size tape shoe makers	17 nos.
14.	Wooden blocks	17 nos.
15.	Wooden lags	17 nos.
16.	Iron (for part waist)	17 nos.
17.	Iron lasts three lags	4 Nos.
18.	Iron (for part waist)	5 Nos.
19.	Fudge wheels	4 Nos.
20.	Sole decorating wheels	4 Nos.
21.	Edge setters	10 Nos.
22.	Shoe maker's knives	17 nos.
23.	Punches of sizes and designs	17 nos.
24.	Wooden / PVC lasts sizes 5 to 10 (Gents)	17 Nos.
25.	Wooden / PVC lasts boys sizes 1 to 4	10 Pairs
26.	Wooden / PVC lasts children sizes 4 to 13	17 nos.
27.	Wooden / PVC lasts ladies size 2 to 7	12 Pairs
28.	Adhesives containers	16 Pairs
29.	Stove / Heater 1000 Watts	2 Nos.
30.	Enamel basin	4 Nos.
31.	Polishing brushes	4 Nos.
32.	Oil stone (25 x 50 x 150 mm)	6 Nos.
33.	Micrometer (0-25)	6 Nos.
34.	Spring Divider	17 nos.
35.	Indenting Scissors	17 nos.
36.	Wooden Lags	17 nos.
37.	Glass Plate ( 3mm-5mm thick ) 750mm x 500mm	1 No.

#### B. MACHINES

SL. NO.	NAME OF THE ARTICLES	QUANTITY
1.	Sewing machine cylinder bed	4 Nos.
2.	Sewing machine industrial type flat bed	16 Nos.
3.	Upper leather skiving machine	1 No.
4.	Punching and eyeleting devices	1 No.
5.	Combined finishing machine	1 No.
6.	Sewing Machine Double Needle Flat Bed	1 No.
7.	Sewing Machine Post Bed	1 No.
8.	Splitting / Evening Machine Leathers	1 No.



9.	Hydraulic Clicking Machine	1 No.
10.	Stamping / Stampica Machine	1 No.
11.	Air Stuck : Pneumatic Cementing Press Machine	1 No.
12.	Manual Sole Pressing Machine	1 No.
13.	Clicker Machine	1 No.
14.	Skive Machine	1 No.
15.	Decorating Machine	1 No.

### C. FURNITURES

SL. NO.	NAME OF THE ARTICLES	QUANTITY
1.	Almirah	2 Nos.
2.	Trainee (Footwear) work bench	16 Nos.
3.	Show case	1 No.
4.	Work bench for clicking	8 Nos.
5.	Instructor's desk and chair	1 Set
6.	Durries 200 x 250 mm	2 Nos.
7.	First Aid Box	1 No.
8.	Black Board with Easel	1 No.
9.	Stools and desk for trainee	1 No. each
10.	Work Table with vice guard	1 No. each