



GOVERNMENT OF TAMILNADU

DIRECTORATE OF TECHNICAL EDUCATION, CHENNAI-25

STATE PROJECT COORDINATION UNIT

(Established under Canada India Institutional Cooperation Project)

CURRICULUM

Course Name	FOOTWEAR DESIGNING AND PATTERN MAKING
Course Code	LT/2020/001
Course Duration	160 Hours
Minimum Eligibility Criteria and Pre-requisites(if any)	8 th /10 th /+2/Diploma/Graduates
Course Objectives	Training module has been designed to provide the participants <ul style="list-style-type: none"> • Perform design and pattern engineering • CAD/ CAM training • Perform data management tasks
Course Outcomes	At the end of training, the participants will be able to <ul style="list-style-type: none"> • Gain knowledge of CAD/ CAM • Know how to develop pattern for footwear • Know about pattern grading and nesting
Expected Job Roles	Waged employment as CAD operator <ul style="list-style-type: none"> • Footwear Manufacturing Company • CAD pattern making unit • Educational or Training Institutions • Work as an instructor in a training institute Self employment as CAD Service Provider Design and Pattern engineering job work for footwear factories

TEACHING AND SCHEME OF EXAMINATION						
Course Code	Course Name	Hours		Assessment Marks		Duration of Examination
				Min	Max	
LT/2020/001	Footwear Designing and Pattern Making	Theory	40	10	20	3 Hours
		Practical	120	40	80	
		Total	160	50	100	

LT/2020/001- FOOTWEAR DESIGNING AND PATTERN MAKINGDETAILED SYLLABUS

Unit No.	Modules	No. of Hours	
		Theory	Practical
I	Anatomy and Basic styles	30 Hours	
	Anatomy of human foot - foot parameters -Design-Pattern and their types-Style specification-Seven basic styles –tools and materials-Pattern Cutting practice	20	10
II	Mean forme Extraction	40 Hours	
	Last- central line drawing and measurement - inside and outside marking- Mean forme extraction- insole pattern-design of toe-puff, stiffeners, sock-design of heels-Cuban, Louis, stacked - Designing of bottom plate pattern.	5	35
III	Upper standard Preparation	40 Hours	
	Designing of upper and lining standards and development of net patterns and working patterns for basic style court shoe-derby shoe-oxford shoe-Slip on shoe-Moccasin shoe-Boot-Accessories-Buckle – bows-elastics-eyelets-saddles-padding-for functional and purposes.	5	35
IV	Practice on 2D CAD	50 Hours	
	2D Digitizing, Configuration and concept of digitizer-Preparation of Shell for digitization-Digitizing procedure-Saving the digitized data-Packet and pattern creation-Different kinds of grading and its procedure-Decorative punch creation-Style transfer-Exporting shell files-Interfacing commands-Grading-Interfacing with plotter.	10	40
Total Theory and Total Practical Hours		40	120
Total hours		160	

HARDWARE REQUIREMENT

S.NO	LIST OF MACHINES
1.	Personal Computer with all peripherals
2.	Digitizer
3.	Plotter

SOFTWARE REQUIREMENT

Pro CAM 2D Software/Shoe Master 2D software

REFERENCE WEBSITE / BOOKS

S.NO	NAME OF THE BOOK	AUTHOR	PUBLISHER
1	Manual of Shoe making	R.G. Miller	Clarks Ltd., Publications
2	Text Book of Footwear Manufacture	J.H. Thornton	The National Trade Press Ltd
3	Know Your Footwear	B. Venkatappaiah	NICLAI Publications
4	The Complete Hand Book of footwear making	A.Luximon	Woodhead
5	Designing Manual	MD.Sadique	CLRI
6	Designing Manual	FDDI	FDDI

ASSESSMENT AND CERTIFICATION

S.No	Criteria for assessment
1.	A trainee will be assessed based on the performance in End Examination for Theory and Practical conducted internally in the Project Polytechnic College for a duration of 3 hours
2.	A trainee must have 75% of attendance to appear for End examination in Theory and Practical.
3.	The assessment for theory part will be based on the marks scored in the end examination on the knowledge bank of questions (1 word/objective type questions)
4.	The assessment for practical part will be based on the marks scored in the end examination conducted by the Project Polytechnic and assessed by the Examiners approved by Strategic Plan Implementation Committee (SPIC) of the project polytechnic.
5.	The criteria for successful completion of training is every trainee should score 50% of marks in theory and practical examination.
6.	On successful completion of training, Certificate will be issued to the participants by the Directorate of Technical Education through the Project Polytechnic.

END EXAMINATION

ALLOCATION OF MARKS

S.No	Description	Max.Marks
1.	Theory Examination	20
2.	Practical Examination	
	a)Mean form Extraction	14
	b)Upper standard Preparation and Style line marking	12
	c)Pattern making	12
	d)Pattern Grading by CAD	12
	e)Result	10
	f)Record	20
Total Marks		100

THEORY MODEL QUESTION PAPER

LT/2020/001- FOOTWEAR DESIGNING AND PATTERN MAKING

(Maximum Marks: 20)

(N.B: Answer any Twenty questions)

20x1= 20 Marks

1. Define Patterns?
2. How patterns are classified?
3. Write down the types of footwear
4. Name few designing tools used in pattern making
5. What is mean forme.
6. Write note on style lines in upper standard
7. Write down the applications of Shoe CAD
8. Name the various software of shoe designing
9. Write a note on sock-design
10. Write a note on court shoe
11. Write a note on derby shoe
12. Write a note on oxford shoe
13. What are the Accessories used for footwear designing?
14. What is CAD?
15. What is the function of a digitizer?
16. Write a note on grading
17. How do you extract data from a plot?
18. How do you save the digitized data?
19. How do you Export shell files?
20. Write down the advantages of pattern digitization.
21. Write a note on interfacing command.
22. Write a note on 3D designing.
23. Write down the types of grading.
24. Write a note on geometrical grading.
25. Write a note on pattern nesting.