

LG-108-FUNDAMENTALS OF LEATHER PRODUCTS LAB

Course Title	Fundamentals of Leather Products Lab	Course Code	LG-108
I year	I	Course Group	Practical
Teaching Scheme in Periods (L:T:P)	30:0:60	Credits	2
Methodology	Lecture + Practicals	Total Contact Periods :	90
CIE	60 Marks	SEE	40 Marks

Pre requisites

This course requires the basic knowledge of Basic Physics and Mathematics at Secondary school level, Knowledge of hand tools used in footwear fabrication..

Course Outcome

On completion of the course, the student should be able to:

CO	Course Outcomes
CO1	Identify and use hand tools safely and perform basic cutting and skiving operations on leather materials.
CO2	Perform stitching, edge folding, skiving, and foot measurement operations using appropriate tools and techniques.
CO3	Develop patterns and fabricate small leather goods such as key cases and coin pouches using cut-edge construction methods.
CO4	Identify closed-type footwear styles, bottom construction methods, and design insoles from foot measurements.
CO5	Design and prepare the sole, heel, and upper components for open-type footwear (Chappal).
CO6	Fabricate open-type footwear by assembling upper components, attaching the sole and heel, and performing finishing operations.

Course Content and Blue Print of Marks for SEE

Unit No	Unit Name	Periods
1	Study of Tools, Practice of Cutting and Skiving Operations	15
2	Practice of Edge folding, Stitching Practice, measurement of foot	15
3	Designing, Fabrication of Small Leather goods Key case and Coin pouch	15
4	Study of Closed type footwear, Bottom shoe construction methods and Designing of Insole from the foot	15
5	Designing and Preparation of sole, heel and upper parts of Chappal	15
6	Fabrication of Open type Footwear	15
Total		90

Course Contents

UNIT1:Study of Tools, Practice of Cutting and Skiving operations

Duration:15Periods(L:5–P: 10)

a) Handtools used in Footwear and leather goods manufacturing.

- Steel rule
- Measuring tape.
- Spring Divider.
- Thickness gauge.
- Leather Thickness measuring gauge.
- Scissors.
- Clicking knife.
- Rampi.
- Cutting board.
- Sharpening tool.
- Cuddapah slab.
- Marking awl.
- Zig Zag scissors.
- Stitching awl.
- Single hole punch.
- Wooden mallet.
- Revolving Punch.
- Eyelet setter.
- Press button setter.
- Gootam.
- Lasting pincers.
- Tack lifter.
- McKay knife.
- Shoe hammer.
- Roughing tool.
- Seat wheeling tool.

- Edge setting iron

- b) Identification of defects on leather
- c) Cut the components of leather products from the given material by rampi
- d) Sharpening of Cutting knife, rampi
- e) Skive the edges of Footwear components along the marked allowance

UNIT2: Stitching, Edge folding practice, Foot measurement

Duration:15Periods (L: 5–P:10)

- a) Identification of defects on leather
- b) Cut the components of leather products from the given material by Clicking Knife.
- c) Sharpening of Cutting knife, rampi (Skiving Knife)
- d) Skive the edges of Footwear components along the marked allowance

UNIT3: Designing and Fabrication of Small Leather Goods

Duration:15Periods(L:5–P:10)

- a) Pattern development for key case
- b) Fabrication of Key case by Cut edge construction method
- c) Pattern development for Coin pouch
- d) Fabrication of Coin pouch by cut edge construction method.

UNIT4:Study of Closed type footwear, Bottom shoe construction methods and designing of Insole from the foot

Duration:15Periods(L:5–P:10)

- a) Classification of Closed type footwear based on its upper construction
- b) Characteristics of Different styles of Closed Footwear
- c) Designing of insole from foot for Open type Footwear

UNIT5:Designing and Preparation of sole, heel and upper parts of Chappal

Duration:15Periods(L:5–P:10)

- a) Designing of sole from the insole for open type footwear
- b) Designing of heel from sole pattern.
- c) Developing Upper patterns for open type footwear (Chappal)
- d) Cut sole, heel and upper parts of open type footwear(Chappal)from the given material.

UNIT6: Fabrication of Open type footwear Duration:15Periods(L: 5–P:10)

- a) Slot marking on insole for Open type footwear(Chappal)
- b) Upper components assembling and stitching
- c) Attachment of sole and heel
- d) Finishing of fabricated open type footwear (Chappal)

Reference Books

- 1. Introduction to the modern Footwear Technology-B. Venkatappaiah
- 2. Manual of shoemaking-Clarks.

Suggested E-learning references

- 1. <http://icanmakeshoes.com>shoemaking>.
- 2. www.simpleshoemaking.com
- 3. <http://shoemakingcoursesonline.com>

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Suggested Learning Outcomes

Upon completion of the course, the student shall be able to

CO1: Identify different types of hand tools used in fabrication of Leather Products and make use of proper hand tool to perform cutting, skiving operations

Duration: 12 Periods (L:5 – P:10)

1.1 Operate following hand tools used in Footwear and leather goods manufacturing.

- Steel rule
 - Measuring tape
 - Spring Divider
 - Thickness gauge
 - Leather Thickness measuring gauge
 - Scissors
 - Clicking knife
 - Rampi
 - Cutting board
 - Sharpening tool
 - Cuddapah slab
 - Marking awl
 - Zig Zag scissors
 - Stitching awl
 - Single hole punch
 - Wooden mallet
 - Revolving Punch
 - Eyelet setter
 - Press button setter
 - Gootam
 - Lasting pincers
 - Tack lifter
 - McKay knife
 - Shoe hammer
 - Roughing tool
 - Seat wheeling tool
 - Edge setting iron

1.2 Identify the tools used for cutting.

1.3 Identify the defects on leather.

1.4 Perform cut the given component from the appropriate portion of the leather.

1.5 Identify the tools used for skiving.

1.6 Perform following type of skiving by using the hand tools.

- Folding skiving
- Under lay skiving
- Raw edge skiving

CO2: Perform stitching the different parts of leather products by using stitching machine, develop the technique involved in folding the edges of components by hand, measure the foot
Duration:12 Periods (L:5 – P:10)

2.1 Identify the parts of stitching machine.

2.2 Stitch the following seams.

- Closed seam
- Open seam

2.3 Perform the skiving on given components.

2.4 Perform edge folding operation along the skived region of the component.

2.5 Identify the tools used for measuring the foot.

2.6 Measure the length of foot, big toe height by using suitable tool.

2.7 Measure the following girth measurements of foot by using measuring tape.

- Ball girth
- Waist girth
- Instep girth
- Long heel girth
- Short heel girth
- Ankle girth

CO3: Design key case and coin pouch as per the specifications and construct small leather goods with given material
Duration: 12 Periods (L:5 – P:10)

3.1 Develop patterns for cut edge key case.

3.2 Construct cut edge key case as per design.

3.3 Develop patterns for cut edge coin pouch.

3.4 Develop patterns for cut edge coin pouch.

CO4: Study of Closed type footwear, and designing of Insole from the foot
Duration: 12 Periods (L:5 – P:10)

a) Classification of Closed type footwear based on its upper construction

b) Characteristics of Different styles of Closed Footwear

c) Designing of insole from foot for Open type Footwear

CO5: Designing and Preparation of sole, heel and upper parts of Chappal
Duration: 15 Periods (L:5 – P:10)

a) Designing of sole from the insole for open type footwear

b) Designing of heel from sole pattern

c) Developing Upper patterns for open type footwear (Chappal)

d) Cut sole, heel and upper parts of open type footwear (Chappal) from the given material

CO6: Fabrication of Open type footwear**Duration: 15 Periods (L:5 – P:10)**

- a) Slot marking on insole for Open type footwear (Chappal)
- b) Upper components assembling and stitching
- c) Attachment of sole and heel
- d) Finishing of fabricated open type footwear (Chappal)

Suggested Student Activities

1. Student visits nearby industry to see the hand tools used by them.
2. Collect different open type footwear sketches.
3. Survey of Feet, shoesizes, girth of different people from the Society, and prepare
4. Collect different type of Small leather goods sketches.
5. Techfest/ Srujana
6. Paper/Poster presentation
7. Quiz
8. Surprise Test
9. Group discussion

CO-PO Mapping Matrix

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	2	3	2	1	2	1	1	-	2
CO2	3	2	2	3	2	1	2	1	1	-	2
CO3	3	3	3	2	2	1	2	1	1	1	1
CO4	3	2	3	2	1	1	2	1	-	-	1
CO5	3	3	3	2	2	1	2	1	1	1	1
CO6	3	3	3	3	2	2	2	1	1	1	2

State Board of Technical Education and Training, Telangana
Mid Sem-I Model Question Paper
DLG I Year

Course Code: LG-108

Duration: 1 hour

Course Name: Fundamentals of Leather Products Lab

Max.Marks: 20 Marks

Instructions to the Candidate:

Pick and Answer any One of the following Questions from the given list. 1X20=20 marks

- 1) Describe the various hand tools used in footwear fabrication with neat sketches and write its specific objective and maintenance procedure.
- 2) Cut the given shoe upper components from the given material by using hand clicking knife.
- 3) Perform the skiving operation along the marked edge of given Footwear component by using Rampi.
- 4) Perform edge folding operation along the top line of given Quarter component (width of fold=4mm).
- 5) Measure length and all Girth measurements of your foot by using measuring tape.
- 6) Stitch the given shoe components as Open seam and closed seam.

State Board of Technical Education and Training, Telangana
Mid Sem-II Model Question Paper
DLGI Year

Course Code: LG-108

Duration: 1 hour

Course Name: Fundamentals of Leather Products Lab

Max.Marks: 20 Marks

Instructions to the Candidate:

Pick and Answer any One of the following Questions from the given list. 1X20=20 marks

1. Design and fabricate the Cut edge Key case of given size with given material.
2. Design and fabricate the Cut edge Coin Pouch of given size with given material
3. Explain the characteristics of different types of Closed type footwear with neat sketches.
4. Design & Prepare Gents Size 8 (Adults) Insole for open type footwear (Chappal).

**State Board of Technical Education and Training,
Telangana**

End Examination

Model Question paper

DLGI Year

Course Code:LG-108

Course Name: Fundamentals of Leather Products Lab

Duration:2 hours

Max.Marks:40

Instructions to the Candidate:

Pick and Answer any One of the following Questions from the given list.

1 X 40=

40

1. Describe the various hand tools used in footwear fabrication with neat sketches and write its specific objective and maintenance procedure.
2. Cut the given shoe upper components from the given material by using hand clicking knife.
3. Perform the skiving operation along the marked edge of given Footwear component by using Rampi.
4. Stitch the given shoe components as Open seam and closed seam.
5. Fold the edge of the given Quarter component (width of fold=4mm) along it's top line.
6. Measure length and all Girth measurements of your foot by using measuring tape.
7. Design and fabricate the Cut edge Key case of given size with given material.
8. Design and fabricate the Cut edge Coin Pouch of given size with given material.
9. Design and fabricate the Cut edge Key case of given size with given material.
10. Design and fabricate the Cut edge Coin Pouch of given size with given material
11. Design&PrepareGentsSize8(Adults)Insole for open type footwear (Chappal).
12. Design&PrepareGentsSize8(Adults)Sole for open type footwear(Chappal).
13. Design&PrepareGentsSize8(Adults)Sole and Heel for open type footwear (Chappal).
14. Design&PrepareGentsSize8(Adults)jubileemodelChappalUpperpatterns.
15. Fabricate the given Style Open type footwear of given size with given material