

GOVERNMENT POLYTECHNIC MUMBAI

(Academically Autonomously Institute, Government of Maharashtra)

Teaching and Examination Scheme (P19)

With effect from AY 2019-20

Programme: Diploma in Leather Goods and Footwear Technology (Sandwich Pattern)Term / Semester – IV

Course Code	Course Title	Teaching Hours/Contact Hours				Credits	Examination Scheme (Marks)						
		L	P	TU	Total		Theory			PR	OR	TW	Total
							TH	TS1	TS2				
LG 19310	Footwear Fabrication-II	3	6	-	9	9	60	20	20	50*	-	50	200
LG 19311	Footwear Chemistry	2	2	-	4	4	60	20	20	-	-	50	150
LG 19205	Book Keeping And Costing	4	0	-	4	4	60	20	20	-	-	-	100
LG 19405	Footwear Styling Practice	0	6	-	6	6	-	-	-	50	-	50	100
LG 19406	Professional Production In Leather Sector	0	6	-	6	6	-	-	-	50	50	50	150
LG 19312	Leather Goods Production	0	6	-	6	6	-	-	-	50	-	50	700
	TOTAL	9	26	-	35	35	180	60	60	150	50	200	700
Student Centered Activity(SCA)					00								
Total Contact Hours					35								

Abbreviations: L- Theory Lecture, P-Practical, TU-Tutorial, TH- Theory Paper TS1 & TS2- Term Tests, PR-Practical, OR-Oral, TW: Term Work (progressive assessment)

* Indicates assessment by External Examiner else internal assessment, # indicates Self, on- line learning Mode, @ indicates on line examination

Note: Duration of Examination--TS1&TS2 -1 hour , TH- 2 hours, PR/OR – 3 hours per batch , SCA- Library - 1 hour, Sports- 2 hours, Creative Activity-2 hours

Coordinator,
Curriculum Development,
Department of Leather Technology

In-Charge
Curriculum Development Cell

Head of Departments
Department of Leather Technology

Principal

Programme : Diploma in Leather Goods And Footwear Technology										
Course Code: LG 19310				Course Title: FOOTWEAR FABRICATION -II						
Compulsory / Optional:										
Teaching Scheme and Credits				Examination Scheme						
TH	PR	TU	Total	TH (2 Hrs 30 Min)	TS1 (1 Hr)	TS2 (1Hr)	PR	OR	TW	Total
03	06	-	09	60	20	20	50*	-	50	200

Abbreviations: L- Theory Lecture, P-Practical, TU-Tutorial, TH- Theory Paper TS1 & TS2- Term Tests, PR-Practical, OR-Oral, TW: Term Work (progressive assessment) , * Indicates assessment by External Examiner else internal practical skill test , # indicates Self, on- line learning Mode, @ indicates on line examination

Note: For Minimum passing marks under various heads, refer, examination rule AR26. Two practical skill test are to be conducted. First skill test at midterm and second skill test at the end of the term.

Rationale:

This course is classified under the applied technology. Course Describe the facts, Concepts, principles & techniques of closed Footwear fabrication for bottoming .The student get an idea and identification of bottoming and finishing of various types of shoe

This course is widely growing technology due to this subject. Students can know the closed footwear bottoming and finishing technique with experiments for closed footwear fabrication; they will get the experience of construction for bottom fabrication with use of different advance machine and hand tools which are always utilize in Footwear Industries.

Course Outcomes: Student should be able to

CO1	Understand the application of bottom assembling and finishing machines
CO2	Understand the purpose of various bottoming components and their material with reinforcement material and grinders require for making bottom
CO3	Prepare the conditioning and technical preparation for particular construction require for making closed footwear,
CO4	Understand the application of assembling process with particular Construction methodology for making closed footwear.
CO5	Understand the application of post assembling process and Inspection for making closed footwear.
CO6	Prepare bill of material and can Calculate the costing with various methods for making complete closed footwear

Unit No	Topics / Sub-topics
1	<p>1. Bottom assembling and finishing machine</p> <p>1.1. TPR molding machine</p> <p>1.2. Pre lasting machine- Vamp crimping machine for shoe and boot , Insole molding machine, Seam pressing , Automatic spray gluing machine</p> <p>1.3. Lasting machine- Heat activator , Heat setter, Sole attaching press machine ,Hot melt adhesive pasting, Toe lasting, Side lasting , Seat lasting, Sole stitching</p> <p>1.4. Beam hose machine-Nailing machine ,Riveting machine ,Eyeleting machine, Embossing machine, Hammering machine , Pounding machine ,</p> <p>1.5. Finishing machine -Trimming machine, Spray booth, Automatic drying machine ,Edge buffing and polishing machine</p> <p>Course Outcome: CO1 Teaching Hours :08 Marks:10 (R-02 , U-04, A- 04)</p>
2	<p>2. Bottom component and their material</p> <p>2.1. Insole-Properties of insole, Different types of insole, Leather Insole, Leather board ,Cellulose Board ,Backer Board Insole, Bleached Board Strip, Blended Insole with Skeleton, Covered insole, Gel Insole, Orthopedic Insole, Plastic Insole, Sandwich Insole</p> <p>2.2. Midsole -Eva Sheet ,Leather Sole, Leather Board, Bottom plate for protective footwear</p> <p>2.3. Sole-Introduction of leather and non-leather sole, Object of leather and non-leather sole. Properties of soling material ,</p> <p>2.4. Types of Soling Materials ,Leather sole , Rubber sole ,Plantation Crape sole, Micro Rubber sole, Poly Vinyl Chloride sole, Ethylene Vinyl Acetate sole ,Polyurethane sole, Thermo Plastic Rubber sole, Unit Sole, Nitrile Sole, D.I.P. sole , D.V.P. Sole</p> <p>2.5. Heel -Injection and molded heel, Chunky heel, Stiletto heel, Cuboids heel, Built Heel, Turn Wood Heel , Louis heel</p> <p>2.6. Socks- Eva Sheet ,Leather Sole, Leather Board</p> <p>2.7. Welt-Boarder strap</p> <p>2.8. Top piece-Rubber piece, PVC top piece</p> <p>2.9. Shank -Metal shank , Wooden shank</p> <p>2.10. Middle piece- Seat lift</p> <p>Course Outcome: CO2 Teaching Hours :08 Marks:08 (R-04 , U-04, A- 00)</p>
3	<p>3. Technical conditioning for Bottom material</p> <p>3.1. Pre – assemble Technical conditioning for Bottom material</p> <p>3.1.1. Technical attachment process of P.V.C./P.U., Rubber Sole</p> <p>3.1.2. Sole Cleaning</p> <p>3.1.3. Abrasion process of Bottoming</p> <p>3.1.4. Method of Adhesive application, Method of Adhering, Time of Adhesion</p> <p>3.1.5. Temperature and pressure for attachment for sole</p>

	<p>3.1.6. Precaution during adhering of P.U. and P.V.C. Sole in D.I.P. and D.V.P. method</p> <p>3.1.7. Inspection of sole adhesion</p> <p>3.2. Technical attachment process of T.P.R. Sole</p> <p>3.2.1. Sole Cleaning</p> <p>3.2.2. Halogen Method</p> <p>3.2.3. Abrasion process of Bottoming</p> <p>3.2.4. Method of Adhesive application</p> <p>3.2.5. Method of Adhering, Time of Adhesion,</p> <p>3.2.6. Temperature and pressure for attachment for sole</p> <p>3.2.7. Precaution during adhering of Sole , Inspection of sole adhesion</p> <p>3.3. Heel measurement</p> <p>3.3.1. Technical consideration for designing heel</p> <p>3.3.2. Height measurement of heel</p> <p>3.3.3. Reinforcement of the heel</p> <p>3.4. Method of Heel Attachment</p> <p>3.4.1. Inside Attachment</p> <p>3.4.2. Outside attachment</p> <p>3.4.3. Temporary attachment</p> <p>3.4.4. Stuck attachment</p> <p>3.4.5. Louis Heel attachment , Heel Treatment, Heel trimming, Heel Scouring</p> <p>Course Outcome: CO3 Teaching Hours :08 Marks:14 (R-04 , U-04 .A- 06)</p>
4	<p>4. Assembling process with particular Construction</p> <p>4.1. Stich down construction</p> <p>4.2. Stuck on construction</p> <p>4.3. Sequence of assembling of derby shoe Upper with bottom</p> <p>4.4. Sequence of assembling of Oxford shoe upper with bottom</p> <p>4.5. Sequence of Grain Leather shoe</p> <p>4.6. Sequence of Suede leather shoe</p> <p>Course Outcome: CO4 Teaching Hours :08 Marks:12 (R-02 , U-04 , A- 06)</p>
5	<p>5. Post assembling process and inspection</p> <p>5.1. Finishing of Shoe</p> <p>5.2. Technical check list points for inspection of finished closed footwear</p> <p>5.3. Heel Finishing – Shape , Angle, Substance</p> <p>5.4. Treeing department of Shoe room</p> <p>5.5. Dressing- Spray Dressing, Antique Dressing , Suede Dressing</p> <p>5.6. Packaging</p> <p>Course Outcome: CO5 Teaching Hours :06 Marks:10 (R-04 , U-04, A- 02)</p>
6	<p>6. Bill of material and costing</p> <p>6.1. Bill of material-list of various material ,job work, labor work, technical expense, machine charges, overhead expense</p> <p>6.2. Costing - Pre-assembling material Cost, Assembling material Cost, Post assembling material Cost, Finishing material Cost, Packaging material Cost, Provisional Cost, Variable cost Fixed Cost, Marginal cost</p> <p>6.3. wastage</p> <p>Course Outcome: CO6 Teaching Hours :07 Marks:06 (R-02 , U-02, A- 02)</p>

Suggested Specifications Table (Theory):

Unit No	Topic Title	Distribution of Theory Marks			
		R Level	U Level	A Level	Total Marks
1	Bottom assembling and finishing machine	02	04	04	10
2	Bottom component and their material	04	04	00	08
3	Technical conditioning for Bottom material	04	04	06	14
4	Assembling process with particular Construction	02	04	06	12
5	Post assembling process and inspection	04	04	02	10
6	Bill of material and costing	02	02	02	06
Total		18	22	20	60

List of experiments: Total 03

Sr. No.	Unit No	COs	Title of the Experiments	Hours
	1		Preparation of monk shoe with the use of hand welted construction	
1	1	CO1	Selection of various machine required for bottom construction	02
2	1	CO2	Selection of various bottom material according their component	02
3	1	CO3	Pre – assemble Technical conditioning for Bottom material	04
4	1	CO4	Assembling process with particular Construction	14
5	1	CO5	Post assembling process and inspection	04
6	1	CO6	Bill of material and costing	04
				30
	2		Preparation of loafer shoe with the use of stuck on construction	
7	2	CO1	Selection of various machine required for bottom construction	02
8	2	CO2	Selection of various bottom material according their component	02
9	2	CO3	Pre – assemble Technical conditioning for Bottom material	04
10	2	CO4	Assembling process with particular Construction	14
11	2	CO5	Post assembling process and inspection	04
12	2	CO6	Bill of material and costing	04
				30

	3		Preparation of Brogue oxford shoe for formal wear with stuck on construction	
13	3	CO1	Selection of various machine required for bottom construction	02
14	3	CO2	Selection of various bottom material according their component	02
15	3	CO3	Pre – assemble Technical conditioning for Bottom material	04
16	3	CO4	Assembling process with particular Construction	14
17	3	CO5	Post assembling process and inspection	04
18	3	CO6	Bill of material and costing	04
				30
TOTAL				90

Note: All the Experiments are compulsory.

References/ Books:

Sr. No.	Title	Author, Publisher, Edition and Year Of publication	ISBN
1	Handbook of Footwear Design and Manufacture	Publisher: Wood head Publishing Ltd (28 Aug. 2013)	ISBN10: 082479673X ISBN-13: 978-0824796730
2	Complete Book of Shoes	by Marta Morales (Author) Publisher: Firefly Books Ltd (12 Sept. 2013)	ISBN-10: 1770851240 ISBN-13: 978-1770851245
3	Shoe Design	Publisher: Independently published (September 17, 2018) Language: Italian	ISBN-13: 978-1720070436 ISBN-10: 1720070431
4	Fashionary Shoe Design: A Handbook for Footwear Designers	Hardcover – 6 Jan 2015	
5	Shoemaking and Creative Footwear Designs	Hardcover Publisher: Larsen and Keller Education, 2018	ISBN 10: 163549754X ISBN 13: 9781635497540
6	Compressive Footwear Technology	Somnath Ganguly, Published by Indian Leather Technologist association	ISBN 81-901423-0-5

E-References:

1. <https://www.seeandwear.com/blogs/fashion/top-10-shoe-brands-for-men-india>
2. <https://www.metroshoes.net/blog/2017/08/shoe-care-manual-formal-shoes/>
3. <https://www.youtube.com/watch?v=ROd1Acma64o>
4. <https://www.youtube.com/watch?v=EM-D4CQc5Ok>
5. https://www.youtube.com/watch?v=B232n_tFEII
6. <https://www.youtube.com/watch?v=EM-D4CQc5Ok>
7. <https://www.youtube.com/watch?v=M2hHzOdVMps>
8. <https://www.youtube.com/watch?v=BQTV-iUFAI0>

CO Vs PO and CO Vs PSO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2	1	2	1	2	1	1	2	2	1
CO2	2	2	2	2	2	1	1	2	2	1
CO3	2	1	3	2	2	1	1	1	1	2
CO4	2	3	2	3	2	1	1	3	3	3
CO5	1	1	3	3	3	2	1	3	3	3
CO6	1	3	2	3	2	2	1	3	3	3

Industry Consultation Committee:

Sr. No	Name	Designation	Institute/Organisation
1	S.G.Darveshi	Lecturer	Leather Goods And Footwear Technology Dept. Government Polytechnic ,Mumbai
2	M.B.Pol	Head Of The Department.	Leather Technology Dept. Government Polytechnic ,Mumbai
3	Abhishek Waghmare	Proprietor	Khetar India Footwear Industries, Taloja M.I.D.C Navi Mumbai
4	Harish Mishra	Production Manager	Sahyog Fashion Export ,Vasai Dist Palghar

Coordinator,
Curriculum Development,
Department of leather goods and footwear technology

Head of Department
Department of leather goods and footwear technology

I/C, Curriculum Development Cell

Principal



Programme : Diploma in Leather Goods and footwear Department										
Course Code: LG 19311				Course Title: FOOTWEAR CHEMISTRY						
Compulsory / Optional: Compulsory										
Teaching Scheme and Credits				Examination Scheme						
TH	PR	TU	Total	TH (2 hrs 30 Min)	TS1 (1 Hr)	TS2 (1Hr)	PR	OR	TW	Total
2	2	-	04	60	20	20	--	--	50	150

Abbreviations: L- Theory Lecture, P-Practical, TU-Tutorial, TH- Theory Paper TS1 & TS2- Term Tests, PR-Practical, OR-Oral, TW: Term Work (progressive assessment) , * Indicates assessment by External Examiner else internal practical skill test , # indicates Self, on- line learning Mode, @ indicates on line examination

Note: For Minimum passing marks under various heads, refer, examination rule AR 26. Two practical skill test are to be conducted. First skill test at midterm and second skill test at the end of the term

Rationale:

Leather Goods And Footwear Technology is one of the oldest technology ever known by human being & this course is introduce the role of chemistry for footwear in the Manufacturing Leather footwear with the view that students of Leather Goods & Footwear Technology will get awareness of Chemistry as well as chemical to be used for manufacturing of Footwear towards the quality. Practical will improve the knowledge of the student in the form of various types of testing of the content is always useful during the product of making footwear

Course Outcomes: Student should be able to

CO1	Understand about The Structure of Matter
CO2	Understand about Elements and periodic table.
CO3	Develop nd the Awareness about halogen derivatives role in footwear industry
CO4	Develop the Awareness about Alcohol and phenol role in footwear industry
CO5	Develop the Awareness about Aromatic compound role in footwear industry
CO6	Develop the Awareness about finishing waxes and adhesive role in footwear industry

Course Content Details:

Unit No	Topics / Sub-topics
1	<p>1. The Structure of Matter–Elements, Compounds, The States of Matter, Temperature scales, Changes of state, Melting point and boiling point</p> <p>1.1. The Atom –Isotopes, Relative atomic mass, The periodic table, Electron arrangement, Valence electrons Octet,</p> <p>1.2. Ions-Cations and Anions,</p> <p>1.3. Chemical bonding - Ionic compounds, Covalent bonding, Covalent bonds, Electronegativity, Bond polarity, Non-polar molecules, Polar molecules, Weak intermolecular bonds, Dipole- dipole bonding, Hydrogen bonding.</p> <p>1.4. Footwear Precaution & Sanitation: Surface Sanitizer, Disinfecting shoe, & footwear fumigation, .Preservative</p> <p>Course Outcome: CO1 Teaching Hours : 6 hrs Marks: 10 (R- 04, U-04, A-02)</p>

2	<p>2. Elements and periodicity - The origin of elements and their distribution, Discovery of elements, Electronic structure of elements, Block classification of the periodic table and elements, Mendeleev's Periodic Law, Modern Periodic Law, Periodic Trend in Chemical properties,</p> <p>Course Outcome: CO2 Teaching Hours : 4 hrs Marks: 08 (R- 04, U-4, A-0)</p>
3	<p>3. Chemistry Of halogen derivatives</p> <p>3.1. Introduction -Importance of Organic Chemistry, General Characteristics of Organic Chemistry, Classification Of Organic Compound, Homologues series, Empirical And Molecular Formula</p> <p>Course Outcome: CO3 Teaching Hours : 6 hrs Marks: 10 (R-04, U-04, A-02)</p>
4	<p>4. Alcohol & Phenol</p> <p>4.1. Introduction, classification, Nomenclature, Preparation, Chemical Properties, Physical Properties, uses.</p> <p>Course Outcome: CO4 Teaching Hours :04 Marks: 08 (R-02, U-04, A-02)</p>
5	<p>5. Aromatic Compound</p> <p>5.1. Introduction of Aromatic Compound- Characteristic of Aromatic Compound, Difference between aliphatic and aromatic compound, Structural and electronic formula of benzene, Chemical properties of Benzene, Role of aromatic compounds in footwear finishing</p> <p>5.2. Plasticizer- Introduction of Plasticizer, Types of Plasticizer, Classification of Plasticizer, Selection of Plasticizer</p> <p>5.3. Plastic- Introduction of Plastic, Processing of plastic, Morphology of Plastic, Types of Plastic, Thermo plastic -Thermoplastic elastomeric, Compounding of Plastic, Application of Plastic in footwear</p> <p>Course Outcome: CO5 Teaching Hours 05 Marks:12 (R-02, U-04, A-06)</p>
6	<p>6. Waxes and Adhesive</p> <p>6.1. Waxes-Introduction of Waxes, Types of Waxes, Classification of Waxes, object of waxes in footwear finishing</p> <p>6.2. Rubber- Introduction of Rubber, Types of Rubber, Natural Rubber, manmade rubber, Vulcanization of Rubber, Properties of Synthetic Rubber, Application of Rubber of footwear, Advance polymer in Footwear(Co-polyester Hytrel, Pebax, Arkema)</p> <p>6.3. Adhesive-Introduction of Adhesive, Types of Adhesive, Natural source Adhesive, Differentiate between Natural and Synthetic Adhesive, Adhesive and Adhesion, Application of adhesive, Difference between hot melt and cold melt adhesive</p> <p>Course Outcome: CO6 Teaching Hours 05 : Marks: 12 (R-04, U-04, A-04)</p>

Suggested Specifications Table (Theory):

Unit No	Topic Title	Distribution of Theory Marks			
		R Level	U Level	A Level	Total Marks
1	The Structure of Matter	04	04	02	10
2	Elements And Periodic Table.	04	04	00	08
3	Halogen Derivatives	04	04	02	10
4	Alcohol And Phenol	02	04	02	08
5	Aromatic Compound	02	04	06	12

6	Waxes And Adhesive	04	04	04	12
Total		20	24	16	60

List of experiments: Total 10 experiments (or turns) out of 15 experiments (or turns)

1	1	CO1 & CO2	Introduction to laboratory chemical & equipments. Safety measures while performing practical.	02
2	2	CO3	To find out Normality and Strength of NaOH solution with help of 0.1 N H ₂ SO ₄ Solution.	04
3	3	CO3	To find out Normality and Strength of NaOH solution with help of 0.1 N HCL Solution.	04
4	4	CO4	To find out Normality and Strength of Na ₂ CO ₃ solution with help of 0.1 N HCl Solution.	04
5	4&5	CO4 & CO5	To find out Normality and Strength of Crystalline Oxalic Acid Solution with help of 0.1 N KMnO ₄ Solution.	04
6	4&5	CO4 & CO5	Find out total hardness of water by EDTA method.	02
7	4&5	CO4 & CO5	To find out chloride content in given water sample solution.	04
8	4&5	CO4 & CO5	To find out Acidic and Basic radical from given mixture.	02
9	4&5	CO4 & CO5	To find out Acidic and Basic radical from given mixture.	02
10	4&6	CO4 & CO6	To find out Acidic and Basic radical from given mixture.	02
				30

Note: All the Experiments are compulsory**References/ Books:**

Sr. No.	Title	Author, Publisher, Edition and Year Of publication	ISBN
1	Theory And Practice of Leather Manufacturing	K T Sarkar Published by <u>Author</u> in <u>Madras</u> . in1995	ISBN 10 7901244321, 7901024321
2	Leather Technician's Handbook	J H Sharp house Leather Producers' Association (1 February 1972)	ISBN-10: 0950228508 ISBN-13: 978-950228501

E-Reference

1. https://www.youtube.com/watch?v=QCZMyx_557I
2. <https://www.wikihow.com/Calculate-Normality>
3. <https://www.youtube.com/watch?v=q7OTO33k-so>
4. <https://www.youtube.com/watch?v=Ur10PT88zec>
5. <https://www.youtube.com/watch?v=cEOvj6jkdDw>

CO VsPO and CO Vs PSOMapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2	1	1	3	2	1	1	1	1	1
CO2	1	1	-	-	2	1	1	1	-	-
CO3	2	2	-	1	-	1	1	1	-	-
CO4	1	3	3	3	2	1	1	3	3	3
CO5	1	3	3	3	2	2	1	3	3	3
CO6	1	3	3	3	2	2	1	3	3	3

Industry Consultation Committee:

Sr. No	Name	Designation	Institute/Organisation
1	S.G.Darveshi	Leccturer	Leather Goods And Footwear Technology Dept. Government Polytechnic ,Mumbai
2	M.B.Pol	Head Of The Department.	Leather Technology Dept. Government Polytechnic ,Mumbai
3	Kamadeep Ramteke	Chemical assistant	Leather Technology Dept. Government Polytechnic ,Mumbai

Coordinator,
Curriculum Development,
Department of _____

Head of Department
Department of _____

I/C, Curriculum Development Cell

Principal

Programme : Diploma in Leather Goods and footwear Department										
Course Code: LG 19205				Course Title: BOOK KEEPING AND COSTING						
Compulsory / Optional:										
Teaching Scheme and Credits				Examination Scheme						
TH	PR	TU	Total	TH (2 Hrs 30 Min)	TS1 (1 Hr)	TS2 (1Hr)	PR	OR	TW	Total
4	-	-	04	60	20	20	-	--	-	100

Abbreviations: L- Theory Lecture, P-Practical, TU-Tutorial, TH- Theory Paper TS1 & TS2- Term Tests, PR-Practical, OR-Oral, TW: Term Work (progressive assessment) , * Indicates assessment by External Examiner else internal practical skill test , # indicates Self, on- line learning Mode, @ indicates on line examination

Note: For Minimum passing marks under various heads, refer, examination rule AR 26. Two practical skill test are to be conducted. First skill test at midterm and second skill test at the end of the term

Rationale:

Function of Accounting the main functions of accounting are as follows: Measurement of Accounting help to measures past performance of the business entity and depicts its current financial position. It also help in forecasting future performance and financial position of the enterprise using past data. The Student can take decision and relevant information to the users of accounts and costing He can Comparison & Evaluative the Accounting assesses performance the achievement in relation to targets and discloses information regarding accounting policies and contingent liabilities which play an important role in predicting, comparing and evaluating the financial results. He also can Control the Accounting also identifies weaknesses of the operational system and provides feedbacks regarding effectiveness about Government Regulation , Taxation and basic concepts of Cost & Management for the financial year

Course Outcomes: Student should be able to

CO1	Understanding & Introduction of Book Keeping and Accounting
CO2	Explain the Classification of accounting
CO3	Understand the Fundamentals Of Book Keeping And Accounting
CO4	Prepare Basic Accounting Terms
CO5	Explain the Fundamental of Cost accounting
CO6	Explain Fundamentals of Cost Management Accounting and GST

Course Content Details:

Unit No	Topics / Sub-topics
1	1. Introduction of book keeping and accounting 1.1. Definitions , Meaning of Book-Keeping, Features of Book keeping, Objective, Importance & Utility of book keeping. 1.2. Accounting: Meaning of Accountancy, objectives of accountancy, The Accounting Process, Methods of Accounting on Credit & Cash Basis. 1.3. Books of Prime Entry -Cash Book, Bank Book, Journal, Subsidiary Books, Ledger, Opening entries, Closing entries, Transfer entries and Rectification

	entries Course Outcome: CO1 Teaching Hours : 8 hrs Marks: 08 (R- 04, U-04, A-00)
2	2. Classification of accounting 2.1. Financial Accounting 2.2. Cost Accounting 2.3. Accounting Management Course Outcome: CO2 Teaching Hours : 06 Marks:08 (R-04 , U-04 , A-00)
3	3. Fundamentals Of Accounting Cycle 3.1. Recording of Transaction- Journal , Ledger, Adjustment Entries, Closing Entries , Double Entry System 3.2. Cash book – double entry cash book, petty cash book, balancing of cash book & petty cash book 3.3. Trail Balance, Profit and Loss Account. Balance sheet Course Outcome: CO3 Teaching Hours :14 Marks: 10 (R-04 , U- 04 , A-02)
4	4. Basic Accounting Terms Assignment 4.1. Entry, Narration, Profit/ Loss, Assets, Liabilities, Capital, Drawings, Debtors, Creditors, Goodwill, Accounting Year. 4.2. Cash Discount and Trade discount 4.3. Direct Expense - Production related Expense, sale and purchase of Goods, Taxation 4.4. Indirect Expense – Overhead Expense, Depreciation, Drawing ,Loan, Bad debt, Good Debt, Admiration Department Expense, Factory Indirect Expense, Management Expense ,salary Course Outcome: CO4 Teaching Hours :08 Marks: 14 (R-04 , U-04 , A-06)
5	5. Fundamental of Cost accounting 5.1. Introduction - Generally Accepted Cost Accounting Principles Cost Accounting Standards Definitions -Methods of Costing ,Cost & Cost Object ,Cost Organization , Costing System 5.2. Cost Determination and Cost Statements - Introduction Cost Accumulation ,Cost Collection , Cost Sheet Formats & Preparation Course Outcome: CO5 Teaching Hours :12 Marks:10 (R-02 , U-04 , A- 04)
6	6. Cost Management Accounting and GST 6.1. Marginal Costing -Introduction Concept of Contribution, Break-Even Point , Concept of Margin Of Safety 6.2. Cost - Volume - Profit Relationship Application of Marginal Costing for Decision Making 6.3. Goods and Service Tax -Government Rules And regulation about GST Course Outcome: CO6 Teaching Hours :12 Marks:10 (R-02 , U-04 , A- 04)

Suggested Specifications Table (Theory):

Unit No	Topic Title	Distribution of Theory Marks			
		R Level	U Level	A Level	Total Marks
1	Introduction of accounting	04	04	00	08
2	Classification of accounting	04	04	00	08
3	Fundamentals Of Book Keeping And Accounting	04	04	02	10

4	Basic Accounting Terms	04	04	06	14
5	Fundamental of Cost accounting	02	04	04	10
6	Fundamentals of Cost Management Accounting and GST	02	04	04	10
Total		20	24	16	60

References/ Books:

Sr. No.	Title	Author, Publisher, Edition and Year Of publication	ISBN
1	FUNDAMENTALS OF ACCOUNTING	The Institute of Cost Accountants of India CMA Bhawan, 12, Sudder Street, Kolkata - 700 016 Published by : Directorate of Studies The Institute of Cost Accountants of India (ICAI) CMA Bhawan, 12, Sudder Street, Kolkata - 700 016	
2	Book Keeping & Accountancy	Author:- Ms. Toral Juthani- (M.Com, PGDFM)/ Ms. Urvi Mehta – (M.Com) Published by :Target Publications Pvt. Ltd. 2 Nd Floor, Aroto Industrial Premises CHS., Above Surya Evy Hospital, Mulund West, Mumbai- 400080	
3.	Fundamental Accounting (Financial Accounting-I) (For Andhra Pradesh Universities)	<ul style="list-style-type: none"> Publisher: S. Chand Publishing; First edition (2018) Language: English 	ISBN-10: 9352835298 ISBN-13: 978-9352835294

E-Reference

1. <https://www.youtube.com/watch?v=ii91oi0OpXM>
2. <https://www.youtube.com/watch?v=ddVcIBk8IPA>
3. <https://www.youtube.com/watch?v=bOpjE42tKVk>
4. <https://www.youtube.com/watch?v=IggY48vEe2w>
5. <https://www.youtube.com/watch?v=ii91oi0OpXM>

CO Vs PO and CO Vs PSO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2	1	2	1	2	1	1	2	2	1
CO2	2	2	2	2	2	1	1	2	2	1
CO3	2	1	3	2	2	1	1	1	1	2
CO4	2	3	2	3	2	1	1	3	3	3
CO5	1	1	3	3	3	2	1	3	3	3
CO6	1	3	2	3	2	2	1	3	3	3

Industry Consultation Committee:

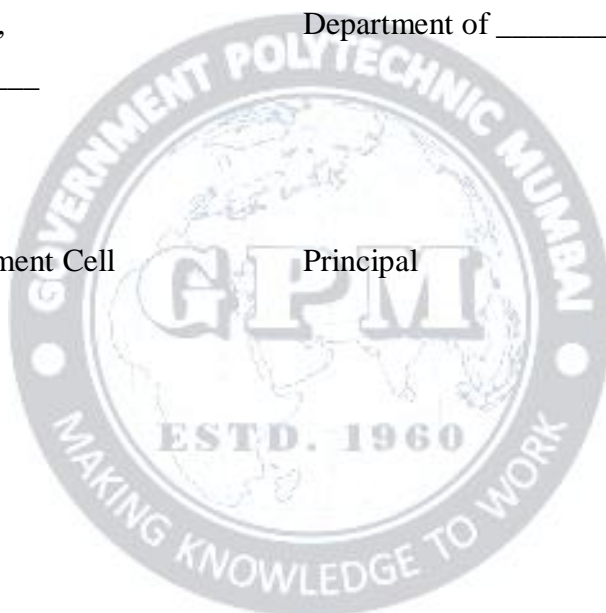
Sr. No	Name	Designation	Institute/Organisation
1	S.G.Darveshi	Lecturer	Leather Goods And Footwear Technology Dept. Government Polytechnic ,Mumbai
2	M.B.Pol	Head Of The Department.	Leather Technology Dept. Government Polytechnic ,Mumbai
3	Devendra Gawad	Govt. Certify Auditor	G P Mumbai Sahakari .Pathsantha

Coordinator,
Curriculum Development,
Department of _____

Head of Department
Department of _____

I/C, Curriculum Development Cell

Principal



Programme : Diploma in Leather Goods And Footwear Technology										
Course Code: LG 19 405				Course Title: FOOTWEAWR STYLING PRACTICE						
Compulsory / Optional:										
Teaching Scheme and Credits				Examination Scheme						
TH	PR	TU	Total	TH (2 Hrs 30 Min)	TS1 (1 Hr)	TS2 (1Hr)	PR	OR	TW	Total
00	06		06	-	-	-	50	--	50	100

Abbreviations: L- Theory Lecture, P-Practical, TU-Tutorial, TH- Theory Paper TS1 & TS2- Term Tests, PR-Practical, OR-Oral, TW: Term Work (progressive assessment) , * Indicates assessment by External Examiner else internal practical skill test , # indicates Self, on- line learning Mode, @ indicates on line examination

Note: For Minimum passing marks under various heads, refer, examination rule AR 26. Two practical skill test are to be conducted. First skill test at midterm and second skill test at the end of the term

Rationale:

This is an application technology which will expose the student to a number of traditional skills and ideas with Technical Illustration as skills, creation, self-expression, personal style, understanding to visualize a required sketching and construction for developing fashionable footwear and designing skill that have occupied artists throughout styling practice in open and closed footwear manufacturing sector with use of different advance machine and hand tools which are always utilize in Footwear Industries.

Course Outcomes: Student should be able to

CO1	Importance creative fashion footwear Design and sketches
CO2	Understand the application of various types of tools and use of material during construction
CO3	Do Pre – assembling process for making footwear
CO4	To Assemble upper and bottom according to pattern and prepared components
CO5	To Post assemble footwear
CO6	Calculate Bill of material and costing for of footwear

Unit No	Topics / Sub-topics
1	1. Principles of fashion for footwear 1.1. Concept of free hand drawing, Geometrical Construction ,Units and formulae for measurement 1.2. The Fundamental of footwear Design ,Designing concept of fashion for fashionable footwear, Methods of development of creativity 1.3. Colour combination for fashionable footwear Course Outcome: CO1 Teaching Hours :00 hrs Marks: (R- 0 , U-0 , A-0)
2	2. Tools and Material 2.1. Tools- Footwear Designing Tools, Footwear Pattern Cutting Tools , footwear Fabrication Tools , Footwear Finishing Tools, Crafting tools 2.2. Creativity in Selection of material, accessories and grinders for fashion Designer and stylist, Change in fashion for footwear, , Winter & summer fashion

	<p>2.3. Choice of Material according to Availability, Area, Elasticity, Plasticity, Strechebility, flexibility, Sole height and Thickness, height of Heel , Fastening and Elastic Gussets, Varieties of Fashionable Insole for open and closed footwear</p> <p>Course Outcome: CO 02 Teaching Hours :00 hrs Marks: (R- 0 , U-0 , A-0)</p>
3	<p>3. Pre assembling process</p> <p>3.1. Definitions of Component of various types of open and closed footwear</p> <p>3.2. Description of basic Upper Component of open and Closed Footwear</p> <p>3.3. Description of basic Bottom Component of open and Closed Footwear</p> <p>3.4. Sequence of Geometrical pattern making Pattern cutting for open footwear, Lasting Margin, Folding Margin</p> <p>3.5. Pattern cutting for closed footwear. Mean Forme for shoe and Boot, Standard Forme for shoe and Boot, Grading of components</p> <p>3.6. Preparation of pre assembling programme chart Skiving Chart, Marking Chart, Stitching Chart, Folding Chart</p> <p>Course Outcome: CO 03 Teaching Hours :00 hrs Marks: (R- 0 , U-0 , A-0)</p>
4	<p>4. Assembling process with particular Construction</p> <p>4.1. Stich down construction</p> <p>4.2. Stuck on construction</p> <p>4.3. Sequence of assembling of derby shoe Upper with bottom</p> <p>4.4. Sequence of assembling of Oxford shoe upper with bottom</p> <p>4.5. Sequence of Grain Leather shoe</p> <p>4.6. Sequence of Suede leather shoe</p> <p>Course Outcome: CO 04 Teaching Hours :00 hrs Marks: (R- 0 , U-0 , A-0)</p>
5	<p>5. Post assembling process and inspection</p> <p>5.1. Finishing of Shoe</p> <p>5.2. Technical check list points for inspection of finished closed footwear</p> <p>5.3. Heel Finishing – Shape , Angle, Substance</p> <p>5.4. Treeing department of Shoe room</p> <p>5.5. Dressing- Spray Dressing, Antique Dressing , Suede Dressing</p> <p>5.6. Packaging</p> <p>Course Outcome: CO 05 Teaching Hours :00 hrs Marks: (R- 0 , U-0 , A-0)</p>
6	<p>6. Bill of material and costing</p> <p>6.1. Bill of material-list of various material ,job work, labor work, technical expense, machine charges, overhead expense</p> <p>6.2. Costing - Pre-assembling material Cost, Assembling material Cost, Post assembling material Cost, Finishing material Cost, Packaging material Cost, Provisional Cost, Variable cost Fixed Cost, Marginal cost</p> <p>6.3. wastage</p> <p>Course Outcome: CO 06 Teaching Hours :00 hrs Marks: (R- 0 , U-0 , A-0)</p>

Sr. No.	Unit No	COs	Title of the Experiments	Hours
	1		Preparation of stuck on oxford shoe with rubber sole from prepared upper	
1	1	CO1	Selection of various machine required for bottom construction	02
2	1	CO2	Selection of various bottom material according their component	02
3	1	CO3	Pre – assemble Technical conditioning for Bottom material	04
4	1	CO4	Assembling process with particular Construction	14
5	1	CO5	Post assembling process and inspection	04
6	1	CO6	Bill of material and costing	04
				30
	2		Preparation of stuck on Oxford with PU sole from prepared upper	
7	2	CO1	Selection of various machine required for bottom construction	02
8	2	CO2	Selection of various bottom material according their component	02
9	2	CO3	Pre – assemble Technical conditioning for Bottom material	04
10	2	CO4	Assembling process with particular Construction	14
11	2	CO5	Post assembling process and inspection	04
12	2	CO6	Bill of material and costing	04
				30
	3		Preparation of Slip on sole from prepared upper	
13	3	CO1	Selection of various machine required for bottom construction	02
14	3	CO2	Selection of various bottom material according their component	02
15	3	CO3	Pre – assemble Technical conditioning for Bottom material	04
16	3	CO4	Assembling process with particular Construction	14
17	3	CO5	Post assembling process and inspection	04
18	3	CO6	Bill of material and costing	04
				30
TOTAL				90

List of experiments: Total 03 experiments of various module

All the experiment are Compulsory

References/ Books:

Sr. No.	Title	Author, Publisher, Edition and Year Of publication	ISBN
1	Handbook of Footwear Design and Manufacture	Publisher: Wood head Publishing Ltd (28 Aug. 2013)	ISBN10: 082479673X ISBN-13: 978-0824796730
2	Complete Book of Shoes	by Marta Morales (Author) Publisher: Firefly Books Ltd (12 Sept. 2013)	ISBN-10: 1770851240 ISBN-13: 978-1770851245
3	Shoe Design	Publisher: Independently published (September 17, 2018) Language: Italian	ISBN-13: 978-1720070436 ISBN-10: 1720070431
4	Fashionary Shoe Design: A Handbook for Footwear Designers	Hardcover – 6 Jan 2015	
5	Shoemaking and Creative Footwear Designs	Hardcover Publisher: Larsen and Keller Education, 2018	ISBN 10: 163549754X ISBN 13: 9781635497540
6	Compressive Footwear Technology	Somnath Ganguly, Published by Indian Leather Technologist association	ISBN 81-901423-0-5

E-References:

- https://en.wikibooks.org/wiki/Drafting/Freehand_Drawing
- <https://www.freepik.com/free-photos-vectors/hand-drawing>
- <https://www.quora.com/What-is-free-hand-drawing>
- <https://www.youtube.com/watch?v=AAMoi8BRPo>
- <https://www.youtube.com/watch?v=l5WLMPCkpUA>
- https://www.youtube.com/watch?v=yIQA_f47NNA
- <https://www.youtube.com/watch?v=oPDYnpTvqVo>
- <https://www.youtube.com/watch?v=s1k2ldxRNTI>
- https://www.youtube.com/watch?v=g_Fce-fo0JA
- <https://www.youtube.com/watch?v=M2hHzOdVMps>

CO Vs PO and CO Vs PSO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2	1	2	1	2	1	1	2	2	1
CO2	2	2	2	2	2	1	1	2	2	1
CO3	2	1	3	2	2	1	3	1	1	2
CO4	2	3	2	3	2	1	2	3	3	3
CO5	1	2	3	3	3	2	2	3	3	3
CO6	2	3	2	3	2	2	1	3	3	3

Industry Consultation Committee:

Sr. No	Name	Designation	Institute/Organisation
1	S.G.Darveshi	Lecturer	Leather Goods And Footwear Technology Dept. Government Polytechnic ,Mumbai
2	M.B.Pol	Head Of The Department.	Leather Technology Dept. Government Polytechnic ,Mumbai
3	Ramesh Singh	Production Mangger	Kavis Fashion Pvt Ltd, Mira Road Dist Thane
4	Harish Mishra	Production Manager	Sahyog Fashion Export

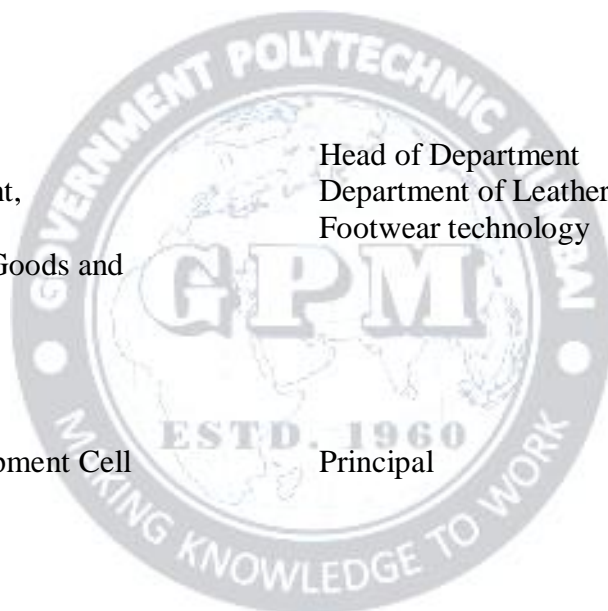
Coordinator,

Curriculum Development,

Department of Leather Goods and
Footwear technologyHead of Department
Department of Leather Goods and
Footwear technology

I/C, Curriculum Development Cell

Principal



Programme : Diploma in Leather Goods And Footwear Technology										
Course Code: LG 19 406				Course Title: Professional Production in Leather Sector						
Compulsory / Optional:										
Teaching Scheme and Credits				Examination Scheme						
TH	PR	TU	Total	TH (2 Hrs 30 Min)	TS1 (1 Hr)	TS2 (1Hr)	PR	OR	TW	Total
00	04		04	-	-	-	50	--	50	100

Abbreviations: L- Theory Lecture, P-Practical, TU-Tutorial, TH- Theory Paper TS1 & TS2- Term Tests, PR-Practical, OR-Oral, TW: Term Work (progressive assessment) , * Indicates assessment by External Examiner else internal practical skill test , # indicates Self, on- line learning Mode, @ indicates on line examination

Note: For Minimum passing marks under various heads, refer, examination rule AR 26. Two practical skill test are to be conducted. First skill test at midterm and second skill test at the end of the term

Rationale:

This is an application technology which will expose the student to a number of traditional skills and ideas with Technical Illustration as skills, creation, self-expression, personal style, understanding to visualize a required sketching and construction with similar material for developing designer leather goods and footwear, He can develop the designing skill that have occupied artists throughout styling practice in open and closed footwear along with leather goods manufacturing sector with use of different advance machine and hand tools which are always utilize in Leather Goods and Footwear Industries

Course Outcomes: Student should be able to

CO1	Importance creative designer leather goods and footwear from the copy designing sketches
CO2	Understand the application of various types of tools and use of material and machine during construction
CO3	Do Pre – assembling process for making footwear as well as leather goods
CO4	Assemble the component according to pattern and design
CO5	Post assemble footwear and leather goods
CO6	Calculate Bill of material and costing of the article

Unit No	Topics / Sub-topics
1	1. Creative designing- Imagination drawing ,Drawing from image, Colorful drawing, Functional drawing , Seasonable drawing, shape Shading ,Differentiate between , 1.1. Introduction to Designing Principle 1.2. Types of Design- Decorative Designing, Designing Composition, Scale and Proportion of Design, Illusion of Designing- Course Outcome: CO1 Teaching Hours :00 hrs Marks: (R- 0 , U-0 , A-0)
2	2. Tools and Material 2.1. Tools- Designing Tools, Pattern Cutting Tools , Fabrication Tools , Finishing Tools, Crafting tools 2.2. Material and machine- Creativity in Selection of material, accessories and

	grinderries and machines for fashion Designing article Course Outcome: CO 02 Teaching Hours :00 hrs Marks: (R- 0 , U-0 , A-0)
3	3. Pre assembling process 3.1. Classification of basic Component of various types leather goods article 3.2. Description of basic Upper Component of open and Closed Footwear 3.3. Description of basic Bottom Component of open and Closed Footwear 3.4. Sequence of Geometrical pattern making Pattern cutting for open footwear, closed footwear and leather goods Course Outcome: CO 03 Teaching Hours :00 hrs Marks: (R- 0 , U-0 , A-0)
4	4. Assembling process and make flow chart Types of Production 4.1. Sequence flow chart operation of Medium Leather Goods Fabrication 4.2. Sequence of assembling of Upper with bottom for closed footwear 4.3. Sequence of assembling of Upper with bottom for open footwear Course Outcome: CO 04 Teaching Hours :00 hrs Marks: (R- 0 , U-0 , A-0)
5	5. Post assembling production 5.1. Bench work operation- Staining, Creasing, Punching, Riveting, Eyeletting, Buttoning, Zip fastening, seam fastening, trolley attachment, piping attachment, Application of Adhesive, Carving and embossing, Molding for designing, Screen printing, Embroidery 5.2. Finishing process- edge treatment, touch up, polishing ,labeling, fishing Inspection- Check the quality of the product as per check list point 5.3. Packing- Packing equipment, dispatch Course Outcome: CO 05 Teaching Hours :00 hrs Marks: (R- 0 , U-0 , A-0)
6	6. Bill of material and costing 6.1. Bill of material- list of various material ,job work, labor work, technical expense, machine charges, overhead expense 6.2. Costing - Pre-assembling material Cost, Assembling material Cost, Post assembling material Cost, Finishing material Cost, Packaging material Cost, Provisional Cost, Variable cost Fixed Cost, Marginal cost, 6.3. wastage Course Outcome: CO 06 Teaching Hours :00 hrs Marks: (R- 0 , U-0 , A-0)

-List of experiments: Total 05 experiments of various module

Sr. No.	Unit No	COs	Title of the Experiments	Hours
1	1	CO1	Preparation of leather wallet with flab and visiting card by selection of creative design	02
2	1	CO2	Selection of machines ,tools, equipment for making article	02
3	1	CO3	Pre- assembling process and selection of all kind material ,	02
4	1	CO4	Finalization of construction and Assembling process	02
5	1	CO5	Post assembling process	08
6	1	CO6	Quality inspection and costing of product	04

				20
7	2	CO1	Preparation of leather creative ornamental open footwear by selection of creative design	02
8	2	CO2	Selection of machines ,tools, equipment for making article	02
9	2	CO3	Pre- assembling process and selection of all kind material ,	02
10	2	CO4	Finalization of construction and Assembling process	02
11	2	CO5	Post assembling process	08
12	2	CO6	Quality inspection and costing of product	04
				20
13	3	CO1	Preparation of leather creative closed footwear by selection of creative design	02
14	3	CO2	Selection of machines ,tools, equipment for making article	02
15	3	CO3	Pre- assembling process and selection of all kind material ,	02
16	3	CO4	Finalization of construction and Assembling process	02
17	3	CO5	Post assembling process	08
18	3	CO6	Quality inspection and costing of product	04
				20
			TOTAL	60

All the experiment are Compulsory

References/ Books:

Sr. No.	Title	Author, Publisher, Edition and Year Of publication	ISBN
1	Handbook of Footwear Design and Manufacture	Publisher: Wood head Publishing Ltd (28 Aug. 2013)	ISBN10: 082479673X ISBN-13: 978-0824796730
2	Complete Book of Shoes	by Marta Morales (Author) Publisher: Firefly Books Ltd (12 Sept. 2013)	ISBN-10: 1770851240 ISBN-13: 978-1770851245
3	Shoe Design	Publisher: Independently published (September 17, 2018) Language: Italian	ISBN-13: 978-1720070436 ISBN-10: 1720070431
4	Leatherwork For Beginners: Your Practical Guide to Leather crafting	Kindle Edition via Amazon	ISBN-10: 1542835712; ISBN-13: 978-1542835718;

5	Making Leather Handbags and Other Stylish Accessories	Publisher: Rockport Publishers Inc. (29 October 2004) Language: English	<ul style="list-style-type: none"> • ISBN-10: 1592530761 • ISBN-13: 978-1592530762
6	Bag Design		SBN: 978-988-77108-0-6

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2. <https://www.freepik.com/free-photos-vectors/hand-drawing>
3. <https://www.quora.com/What-is-free-hand-drawing>
4. <https://www.youtube.com/watch?v=AAMOil8BRPo>
5. <https://www.youtube.com/watch?v=l5WLMPCkpUA>
6. https://www.youtube.com/watch?v=yIQA_f47NNA
7. <https://www.youtube.com/watch?v=oPDYnpTvqVo>
8. <https://www.youtube.com/watch?v=s1k2ldxRNTI>
9. https://www.youtube.com/watch?v=g_Fce-fo0JA
10. <https://www.youtube.com/watch?v=M2hHzOdVMps>

CO Vs PO and CO Vs PSO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2	1	2	1	2	2	1	2	2	2
CO2	2	2	2	2	2	2	1	2	2	2
CO3	2	1	3	2	2	3	2	2	1	2
CO4	2	3	2	3	2	1	3	3	3	3
CO5	2	2	3	3	3	2	3	3	3	3
CO6	2	3	2	3	2	2	2	3	3	3

Industry Consultation Committee:

Sr. No	Name	Designation	Institute/Organisation
1	S.G.Darveshi	Lecturer	Leather Goods And Footwear Technology Dept. Government Polytechnic ,Mumbai
2	M.B.Pol	Head Of The Department.	Leather Technology Dept. Government Polytechnic ,Mumbai
3	Sonam Singh	Fashion Illustrator Professor	International Institute In Fashion Designing ,Mumbai
4	Ramesh Singh	Production Manager	Kavis Fashion Pvt Ltd, Mira Road Dist Thane

Coordinator,

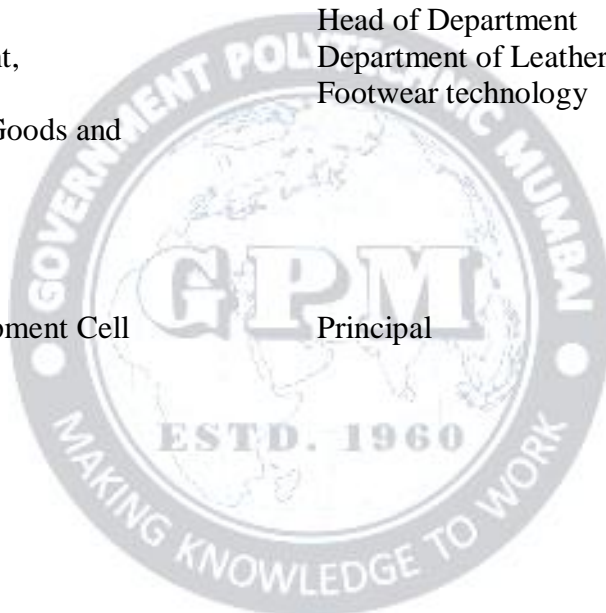
Curriculum Development,

Department of Leather Goods and Footwear technology

Head of Department
Department of Leather Goods and Footwear technology

I/C, Curriculum Development Cell

Principal



Programme : Diploma in Leather Goods And Footwear Technology										
Course Code: LG 19312				Course Title: LEATHER GOODS PRODUCTION						
Compulsory / Optional: Compulsory										
Teaching Scheme and Credits				Examination Scheme						
TH	PR	TU	Total	TH (2 Hrs 30 Min)	TS1 (1 Hr)	TS2 (1Hr)	PR	OR	TW	Total
00	06	-	06	-	-	-	50	-	50	100

Abbreviations: L- Theory Lecture, P-Practical, TU-Tutorial, TH- Theory Paper TS1 & TS2- Term Tests, PR-Practical, OR-Oral, TW: Term Work (progressive assessment) , * Indicates assessment by External Examiner else internal practical skill test , # indicates Self, on- line learning Mode, @ indicates on line examination

Note: For Minimum passing marks under various heads, refer, examination rule AR 26. Two practical skill test are to be conducted. First skill test at midterm and second skill test at the end of the term

Rationale:

This course is classified under the applied technology. Course Describe the facts, Concepts, principles & techniques of leather goods production in quantity. This course is widely growing technology due to this subject. Students can know the fabricating and production concept according to buyer need and fashion and manufacturing technique which are useful for Leather goods Industry. They knowing the use of different fabricating tools and equipment and machine to produce the bulk production which are utilize in Leather goods Industry.

Course Outcomes: Student should be able to

CO1	Finalize the selection of quality material for quality product for various types of leather goods production according to buyer need
CO2	Understand the require tools , equipment and machine and their work for various Leather Goods production
CO3	Operate the pre assembling production and pre plan according to sample for various Leather Goods production
CO4	Operate the assembling production as per construction and make flow chart according to the sample of Leather Goods production
CO5	Operate the Post assembling production like bench work operation , finishing and packaging process in the production of all types of Leather Goods
CO6	Can Calculate the Bill of material and production Cost of the product of various Leather Goods article

Unit No	Topics / Sub-topics
1	1. Quality material for making leather goods 1.1. Small Leather Goods- Pass port cover, Clutch Purse, Coin purse with flab wallets, Small money purse and pouch, Waist pouch , 1.2. Medium Leather Goods- Sag bag, Doctor or Medical Represented Bags, 1.3. Shopping bags, Laptop bag, Tiffin pouch, Sling bag, Personal carrying weekend bag , Office bag , Ladies Shoulder bag,

	<p>1.4. Heavy Leather Goods- Pilot bag, Customized bag , Travelling Bag, Adventure Bag, Luggage Bag ,</p> <p>1.5. Sports Leather Goods- Sport bag, Gym Bag,</p> <p>1.6. Fancy leather Goods- Cosmetic case, handmade bag, Shanti Niketan leather Goods, Camera cover bag</p> <p>Course Outcome: CO1 Teaching Hours :00 hrs Marks: 00 (R- 00, U-00, A-00)</p>
2	<p>2. Tools , equipment and machine Leather Goods Machineries</p> <p>2.1. Tools- Designing tools –Measuring Tape, T-square ,French curve, Scale , ,Pattern patter</p> <p>2.2. Cutting tools-Clicking knife, scissor, Thread trimmer,</p> <p>2.3. Punching tools-hole punch-Awl, pointer,</p> <p>2.4. Pre assembling machineries- Hydraulic clicking press, , Splitting machine, Skiving machine, Strap cutting machine</p> <p>2.5. Assembling machineries-Sewing machines – Flat bed single and double sewing machine, Post bed single and double bed needle machine, Cylinder Bed Sewing machine , zigzag sewing machine, embroidery sewing machine,</p> <p>2.6. Bench work machineries-Edge staining machine, Straight edge folding and creasing machine, Riveting machine, Universal punching machine, Eyeleting machine, Button fitting machine</p> <p>2.7. Finishing machineries- Embossing machine, Gold embossing machine, Table polishing machine</p> <p>2.8. Precaution during machine operation</p> <p>2.9. Advantages of machine operation</p> <p>Course Outcome:CO2 Teaching Hours :00 hrs Marks: 00 (R- 00, U-00, A-00)</p>
3	<p>3. Pre- Assembling Process</p> <p>3.1. Introduction to Designing and pattern making, Key points to be remembered during pattern making</p> <p>3.2. Clicking pattern and Closing pattern, Marking and cutting of pattern</p> <p>3.3. Assembling the pattern for trial</p> <p>3.4. Problems and remedies in pattern before production</p> <p>3.5. Chart for fabrication process , Trial fabrication before production</p> <p>3.6. Lining attachment - Types of Lining, Edge lining, Full lining, Drop-in- lining, Edge Folding</p> <p>3.7. Gusset Fitting- Gussets making, Side Gussets, Continuous Gussets, Folded gussets, Handle making , Frame fixing</p> <p>3.8. Accessories Attachment-zip ,fastener, types of fitting , trolley attachment Types of piping</p> <p>Course Outcome: CO3 Teaching Hours :00 hrs Marks: 00 (R- 00, U-00, A-00)</p>
4	<p>4. Assembling process and make flow chart Types of Production</p> <p>4.1. Turn-over edge Construction: (Fold-edge Construction), Butt-edge construction, Molded construction, Box-work construction, Stiffened Leather construction</p> <p>4.2. Sequence flow chart operation of Medium Leather Goods Fabrication</p> <p>4.3. Sequence flow chart operation of heavy Leather Goods Production</p> <p>4.4. Sequence flow chart operation of sport's Leather Goods Production</p> <p>4.5. Sequence flow chart operation of fancy Leather Goods Production</p>

	Course Outcome: CO4 Teaching Hours :00 hrs Marks: 00 (R- 00, U-00, A-00)
5	5. Post assembling production 5.1. Bench work operation- Staining, Creasing, Punching, Riveting, Eyeleting, Buttoning, Zip fastening, seam fastening, trolley attachment, piping attachment, Application of Adhesive, Carving and embossing, Molding for designing, Screen printing, Embroidery 5.2. Finishing process- edge treatment, touch up, polishing ,labeling, fishing ,packing dispatch Course Outcome: CO5 Teaching Hours :00 hrs Marks: 00 (R- 00, U-00, A-00)
6	6 Bill of material and costing 6.1 Bill of material- list of various material ,job work, labor work, technical expense, machine charges, overhead expense 6.2 Costing - Pre-assembling material Cost, Assembling material Cost, Post assembling material Cost, Finishing material Cost, Packaging material Cost, Provisional Cost, Variable cost Fixed Cost, Marginal cost 6.3 wastage Course Outcome: CO6 Teaching Hours :00 hrs Marks: 00 (R- 00, U-00, A-00)

List of the Experiment: 03

Sr. No.	Unit No	COs	Title of the Experiments	Hours
	1		Preparation of office bag from non-leather	
1	1	CO1	Finalize the selection of quality material for quality product	02
2	1	CO2	Understand the require tools , equipment and machine	02
3	1	CO3	Pre assembling process	04
4	1	CO4	Assembling process	14
5	1	CO5	Post assembling process	04
6	1	CO6	Bill of material and production Cost	04
				30
	2		Preparation of sport leather goods from non-leather	
7	2	CO1	Preparation of leather big size passport Cover by selection of creative design	02
8	2	CO2	Selection of machines ,tools, equipment for making article	02
9	2	CO3	Pre- assembling process and selection of all kind material ,	02
10	2	CO4	Finalization of construction and Assembling process	02
11	2	CO5	Post assembling process	08

12	2	CO6	Quality inspection and costing of product	04
			Total	30
	3		Preparation of from non-leather	
13	3	CO1	Preparation of creative Non-leather medium leather goods	02
14	3	CO2	Selection of machines ,tools, equipment for making article	02
15	3	CO3	Pre- assembling process and selection of all kind material ,	02
16	3	CO4	Finalization of construction and Assembling process	02
17	3	CO5	Post assembling process	08
18	3	CO6	Quality inspection and costing of product	04
			Total	30
			Grand Total	90

Note: All the Experiments are compulsory and should map all units and Cos.

References/ Books:

Sr. No.	Title	Author, Publisher, Edition and Year Of publication	ISBN
1	Manual for leather goods	Uploaded by statesman	
2	Insider guideline for leather Crafting		ISBN-13 : 9781497203464
3	Leatherwork For Beginners: Your Practical Guide to Leather crafting	Kindle Edition via Amazon	ISBN-10: 1542835712; ISBN-13: 978-1542835718;
4	Making Leather Handbags and Other Stylish Accessories	Publisher: Rockport Publishers Inc. (29 October 2004) Language: English	<ul style="list-style-type: none"> • ISBN-10: 1592530761 • ISBN-13: 978-1592530762
5	Bag Design		SBN: 978-988-77108-0-6
6	Handmade Leather Bags & Accessories [Paperback]	Publication Date 2013/11 Publisher- Design Originals (US)	ISBN 9781574217162
7	Department Store Merchandise Manuals: The Leather Goods Department (Classic Reprint)	Publisher: Forgotten Books (5 August 2018) Language: English by Mary A Lehmann (Author)	<ul style="list-style-type: none"> • ISBN-10: 1332224822 • ISBN-13: 978-1332224821

E-References:

1. www.inspire.pinterest.com
2. <https://www.youtube.com/watch?v=4eQtdH6M0uo>
3. https://www.youtube.com/watch?v=Xt7ZD1Da_js
4. <http://www.leatherworker.net>
5. <https://www.youtube.com/watch?v=YdihgoTGMnk>
6. <https://www.youtube.com/watch?v=iuYf93lVSfU>

CO Vs PO and CO Vs PSO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2	3	2	3	1	1	2	1	1	1
CO2	2	3	1	3	2	2	1	1	1	1
CO3	2	3	3	2	1	2	2	1	2	2
CO4	1	2	1	3	2	1	1	2	1	1
CO5	2	3	3	2	1	1	1	2	1	1
CO6	1	1	2	2	2	1	1	1	1	1

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