

**DIPLOMA IN  
FOOTWEAR TECHNOLOGY**

**CURRICULAR STRUCTURE  
AND  
SYLLABUS OF PART – II**

**WEST BENGAL STATE COUNCIL OF TECHNICAL EDUCATION  
"KOLKATA KARIGORI BHAVAN" 110 S N BANERJEE ROAD (2<sup>ND</sup> FLOOR),  
KOLKATA – 700 013**

**CURRICULAR STRUCTURE FOR PART-II (2<sup>ND</sup> YEAR) OF THE FULL TIME  
DIPLOMA COURSE IN FOOTWEAR TECHNOLOGY**

**WEST BENGAL STATE COUNCIL OF TECHNICAL EDUCATION**

**TEACHING & EXAMINATION SCHEME FOR DIPLOMA IN ENGINEERING COURSES**

**BRANCH: DIPLOMA IN FOOTWEAR TECHNOLOGY**

**SEMESTER: FOURTH**

SR. NO	SUBJECT	CREDIT S	PERIODS			EVALUATION SCHEME						MARKS TOTAL
			L	TU	PR	INTERNAL SCHEME			ESE	PR	TW	
						TA	CT	TOTAL				
1	Development of life skill - II	2	1	-	2	-	-	-	-	50	-	50
2	FOOTWEAR MACHINERY— PART-I	2	2	-	-	10	20	30	70	-	-	100
3	METHOD OF FOOTWEAR MANUFACTURE PART-II	6	3		6	10	20	30	70	150		250
4	PRINCIPLES OF SHOE DESIGNING & PATTERN CUTTING II	6	3		6	10	20	30	70	150		250
5	FOOTWEAR MATERIAL TESTING	2	1		2	5	10	15	35	50	-	100
6	FOOTWEAR MERCHANDISING	2	1	1		5	10	15	35			50
7	FOOTWEAR CAD 2D PART-I	2			3					50		50
8	PROFESSIONAL PRACTICE -II	2		2							50	50
	<b>TOTAL</b>	<b>24</b>	<b>11</b>	<b>3</b>	<b>19</b>	<b>40</b>	<b>80</b>	<b>120</b>	<b>280</b>	<b>450</b>	<b>50</b>	<b>900</b>

**STUDENT CONTACT HOURS PER WEEK: 33Hrs.**

Theory and Practical Period of 60 Minutes each.

L – Lecturer, TU – TERM WORK, PR – Practical, TA – Teachers' Assessment, CT – Class Test, ESE – End Semester Exam., TW – Term Work.

## (Development of Life Skills - II)

Duration: One Semester ( 16 hours)	Maximum Marks: 50
Teaching Scheme	Examination Scheme:
Theory: 01 hrs / week	Internal Sessional: 25
Tutorial: -- hrs / week	External Sessional : 25
Practical: 02 hrs / week	

UNITS	CONTENTS	Hours
<b>Unit - 1</b>	<p><b>Interpersonal Relation</b> Importance, Interpersonal conflicts, Resolution of conflicts, Developing effective interpersonal skills - communication and conversational skills, Human Relation Skills (People Skills)</p>	5
<b>Unit - 2</b>	<p><b>Problem Solving</b> <b>I) Steps in Problem Solving (Who? What? Where? When? Why? How? How much?)</b> 1. Identify, understand and clarify the problem 2. Information gathering related to problem 3. Evaluate the evidence 4. Consider feasible options and their implications 5. Choose and implement the best alternative 6. Review <b>II) Problem Solving Technique</b> 1. Trial and Error, 2. Brain Storming 3. Thinking outside the Box</p>	8
<b>Unit - 3</b>	<p><b>Presentation Skills</b> Concept, Purpose of effective presentations,  <b>Components of Effective Presentations :</b> understanding the topic, selecting the right information, organising the process interestingly, Good attractive beginning, Summarising and concluding, adding impact to the ending,  <b>Use of audio-visual aids</b> - OHP, LCD projector, White board,  <b>Non-verbal communication :</b> Posture, Gestures, Eye-contact and facial expression, Voice and Language - Volume, pitch, Inflection, Speed, Pause, Pronunciation, Articulation, Language Handling questions - Respond, Answer, Check, Encourage, Return to presentation  <b>Evaluating the presentation</b> - Before the presentation, During the presentation, After the presentation</p>	8

<b>Unit - 4</b>	<b>Looking for a Job</b> Identifying different sources announcing Job vacancies, Skim, scan and read advertisements in detail, write efficacious CVs, write covering letters to accompany CVs, write Job Application Letters - in response to advertisements and self-applications	5
<b>Unit - 5</b>	<b>Job Interviews</b> <b>Prepare for Interviews :</b> Intelligently anticipating possible questions and framing appropriate answers, Do's and don'ts of an interview (both verbal and non-verbal), <b>Group Discussion:</b> Use of Non-verbal behaviour in Group Discussion, Appropriate use of language in group interaction, Do's and don'ts for a successful Group Discussion	10
<b>Unit - 6</b>	<b>Non-verbal - graphic communication</b> Non - verbal codes: A - Kinesics, B - Proxemics, C- Haptics, D - Vocalics, E- Physical appearance, F- Chronemics, G - Artifacts  Aspects of Body Language	6
<b>Unit - 7</b>	<b>Formal Written Skills:</b> Memos, E-mails, Netiquettes, Business correspondence - Letter of enquiry, Letter of Placing Orders, Letter of Complaint	6
<b>Total</b>		<b>48</b>

Sessional Activities	
<b>Unit - 1</b> Interpersonal Relation	Case Studies: 1. from books 2. from real life situations 3. from students' experiences Group discussions on the above and step by step write of any one or more of these in the sessional copies
<b>Unit - II</b> Problem Solving	Case Studies: 1. from books 2. from real life situations 3. from students' experiences Group discussions on the above and step by step write of any one or more of these in the sessional copies
<b>Unit - III</b> Presentation Skills	Prepare a Presentation (with the help of a Powerpoint) on a Particular topic. The students may refer to the Sessional activity (sl. No. 8) of the Computer Fundamental syllabus of Semester 1. For engineering subject-oriented technical topics the co-operation of a subject teacher may be sought. Attach handout of PPT in the sessional copy
<b>Unit - IV</b> Looking for a job	Write an effective CV and covering letter for it. Write a Job Application letter in reponse to an advertisement and a Self Application Letter for a job.

<b>Unit - V</b> Job Interviews & Group Discussions	Write down the anticipated possible questions for personal interview (HR) along with their appropriate responses Face mock interviews. The co-operation of HR personnels of industries may be sought if possible Videos of Mock Group Discussions and Interviews may be shown
<b>Unit - 7</b> Formal Written Skills	write a memo, write an effective official e-mail, write a letter of enquiry, letter of placing orders, letter of complaint

## FOOTWEAR MACHINERY- PART - I

<b>Subject Code</b>	<b>Course offered in</b>	<b>Duration</b>	<b>2 lecture contact periods</b>	<b>Full Marks</b>
FWT / 4 / T3 / FM1	2 <sup>nd</sup> Year 2 <sup>nd</sup> Semester	17 weeks	per week	100

### EXAMINATION SCHEME

**Internal assessment marks 30 and END SEMESTER EXAMINATION MARKS 70**  
**Distribution of Internal assessment marks : Teacher's Assessment 10, Class Test 20,**

SR.	NO	SUBJECT	CREDIT	PERIODS			EVALUATION SCHEME						
				L	T	PR	INTERNAL SCHEME			ESE	PR	TW	MARKS TOTAL
							T	C	TOT				
			S	A	U	A	T	AL					
2		FOOTWEAR MACHINERY— PART-I	2	2		-	10	20	30	70	-		100

## DETAIL COURSE CONTENT

### 1. Machineries for Clicking

- Types of Clicking (Manual, Machine )
- Manual Clicking
- Machine clicking
- Mechanical clicking press
- Hydraulic clicking press
- Hydronic Clicking Press
- Other Modern Clicking Machine [Fixed arm, Travelling head, Large beam , Flash Cutter etc]
- Comparison of Manual & Machine clicking
- Some features of the Clicking Machine [voltage, oil tank, swing arm, swing arm hand wheel, operation of the swing arm, cutting operation, hydraulic system, cutting board, day light etc]

Introduction to Die-less cutting system, Operation, and Machine adjustment.

### 2. Machineries for Splitting

- Function of Splitting Machine
- Band knife Splitting Machine
- Main features of Splitting Machine [Band knife, Pressure Roller, Feed Roller, Knife Adjustment Mechanism, Feed Roller Adjustment Mechanism, Grinding wheel , Brush Roller etc]

### 3. Machineries for Skiving

- Function of skiving Machine
- Type of Skiving [ Parallel, taper, centre, Double edge, Double Groove)
- Type of Skiving Methods [Manual & machine]
- Machine skiving [Single, Triple, Matrix]
- Some features of skiving Machine [ Bell Knife, Feed Roller, Knife Adjustment Mechanism, Feed Roller Adjustment Mechanism, Grinding Stone, Treadle, Scrap Suction Device etc]
- Comparison of Manual & Machine skiving
- Setting skiving machine

Introduction to Automatic Skiving Machine, Machine adjustment, operation.

### 4. Strap Cutting Machine

### 5. Stamping Machine

### 6. Thermo-folding Machine

**7. Cementing Machine**  
**8. Perforating Machine**

**Needle:-**

- Definition;
- Parts of Needle and their role;
- Needle Finishes;
- Needle systems;
- Needle Size;
- Classification of Needle on the basis of Needle Point;
- Cutting Point[ P, S, LR, PLR, PCR, D, D1, VR];

**Number of Needles;**

**Direction of Needle-bar movements;**

**Material transportation Systems in Stitching machines (Drop Feed, Compound Feed, Unison Feed, Step Feed);**

**Stitching machine Construction;**

**Parts of Stitching Machine and their functions;**

**Types of stitching Machines: - Flat Bed, Post Bed, Cylinder Bed, Variable Stitch, Length Flat Machine, Under Edge Trimmer, Twin Needle flat machine, Zig-Zag Machine; Computerized Stitching Machine. Introduction and Operation**

**9. Work station in Cutting & Pre-fitting Section and related machines**

**TEXT BOOKS:**

1. Solinger Jacob, "Apparel Manufacturing Analysis", Columbia Boblin Media, 1988.
2. Harold Carr and Barbara Lathon, "The Technology of Clothing Manufacture", Blackwell Sciences, 1996.
3. Alison Beazley and Terry Bond, "Computer Aided Pattern Design and Product Development", Blackwell Publishing, UK, 2004.
1. Somenath Ganguly , 'Comprehensive Footwear Technology' ILTA, Kolkata Publication

**METHOD OF FOOTWEAR MANUFACTURE PART- II**

<b>Subject Code</b>	<b>Course offered in</b>	<b>Duration</b>	<b>3 lecture &amp; 6 practical contact</b>	<b>Full Marks</b>
FWT / 4 / T4 / MFM2	2 <sup>nd</sup> Year 2 <sup>nd</sup> Semester	17 weeks	periods per week	100+150

**OBJECTIVE**

To provide the knowledge and impart the skills required to understand the principles and practice of the closing and bottom stock preparation technique.

**EXAMINATION SCHEME**

**Internal assessment marks 30 and END SEMESTER EXAMINATION MARKS 70 Practical Marks 150**

**Distribution of Internal assessment marks: Teacher's Assessment 10, Class Test 20**

**Practical Marks:**

**Internal assessment of 100 marks** shall be held throughout the Semester on the entire syllabus.

Distribution of marks: Practical Book –(open type 10+ close type 10); on the spot job – (open type 20+ close type 20); Assignment – (open type 20+ close type 20).

**External assessment of 50 marks** shall be held at the end of the Semester on the entire syllabus. One job per student from any one of the jobs done is to be performed. Job is to be set by lottery system. Distribution of marks: On the spot job – 40; Viva-voce – 10.

SR. NO	SUBJECT	CREDIT S	PERIODS			EVALUATION SCHEME				
			L	T	PR	INTERNAL SCHEME	ESE	PR	TW	MARKS

				U		T A	C T	TOT AL				TOTAL
3	METHOD OF FOOTWEAR MANUFACTURE PART-II	6	3		6	10	20	30	70	150		250

## DETAIL COURSE CONTENT

### C. Closing technology:

1. Definition of Closing;
2. Reinforcement;
3. Fitting (Flat Fitting, Block Fitting, Holding Together);
4. Type of Stitch (Lock, Chain);
5. Machine Preparation for Stitching
6. Seam, its types[Close Seam( Close Seam Stay, Dog Tail Method), French Seam, Brooklyn Seam, Lapped seam, Butted Seam, Welted Seam, Piped Seam, Open Seam, Bonded Seam, Mocassin seam, Sprung Seam, Welded Seam];
7. Decorative Stitches (Fancy Stitching, Cable stitching, Cording, Top Stitching, Pin Tucking, Lacing);
8. Subsidiary Stitching (Boxing, Barring);
9. Eyeleting, Lacing, Quality Checking;
10. Sequence of operations (Closing)-- Oxford, Derby , Men's Chappal, Men's sandals, Children sandal

### D. Bottom Stock Preparation:

1. Introduction (Stock. Fitting);
2. Insole Preparation for Cemented Construction (Press Cutting, Flexing, Seat Bevelling, Shank Recessing, Preparing sand-witch Insole, insole Moulding, Pre- Shanking);
3. Insole Covering;
4. Contoured Insoles;
5. Sole Preparation for Cemented Construction - Sole Pre-finishing (Pre-Trimming, Sole Edge Brushing, Spray Edge Inking, Sole Edge Reducing, Sole cleaning);
6. Preparation of Stiffner;

### Practical A (Close Type):

Making of the following Items:

- a) Derby shoe with Toe cap
- b) Oxford shoe with Brogue
- c) Slip on casual shoe with Mud-gaurd
- d) Girls school shoe

### Practical B(Open Type):

Making of the following Items:

- a) Men's chappal– 2 different style
- b) Men's sandals – 2 different style
- c) Children sandal – 2 different styles

### TEXT BOOKS:

1. Somenath Ganguly , 'Comprehensive Footwear Technology' ILTA, Kolkata Publication.

## PRINCIPLES OF SHOE DESIGNING & PATTERN CUTTING II

<b>Subject Code</b>	<b>Course offered in</b>	<b>Duration</b>	<b>3 lecture &amp; 6 practical contact</b>	<b>Full Marks</b>
FWT / 4 / T5 / PSDP2	2 <sup>nd</sup> Year 2 <sup>nd</sup> Semester	17 weeks	periods per week	100+150

### EXAMINATION SCHEME

**Internal assessment marks 30, END SEMESTER EXAMINATION MARKS 70 and Practical Marks 150**

**Distribution of Internal assessment marks: Teacher's Assessment 10, Class Test 20**

**Practical Marks:**

**Internal assessment of 100 marks** shall be held throughout the Semester on the entire syllabus.

Distribution of marks: Practical Book –(open type 10+ close type 10); on the spot job – (open type 20+ close type 20); Assignment – (open type 20+ close type 20).

**External assessment of 50 marks** shall be held at the end of the Semester on the entire syllabus. One job per student from any one of the jobs done is to be performed. Job is to be set by lottery system. Distribution of marks: On the spot job – 40; Viva-voce – 10.

SR.	SUBJECT	CREDIT S	PERIODS			EVALUATION SCHEME						
			L	T U	PR	INTERNAL SCHEME			ESE	PR	TW	MARKS TOTAL
						T A	C T	TOT AL				
4	PRINCIPLES OF SHOE DESIGNING & PATTERN CUTTING II	6	3		6	10	20	30	70	150		250

### **DETAIL COURSE CONTENT**

1. Specialised pattern cutting technique:- Springing/deadning techniques for economy, look and fit.  
One pair tracing to observe material consumption and pattern interlock.
2. Drafting - Drafting of shoe uppers on last.
3. Prototype production:- Production of prototype samples for appraisal and assessment to commercial qualities of suitability and excellence.
4. Production Specifications: Specification procedures for use in production, detailing of style, edge treatments, materials and components used, colours, last and constructions. Information and sequence for uppers and bottom – stock processes. Stage sample boards,
5. Production of bottom stock patterns:  
Insole of last pattern making and its use in the production of the lasting insole, socks and sole pattern for various constructions such as – Cemented, Veldtschoen, Goodyear welted, California Sliplasted, Sandal and Chappal.
6. Heel Patten , Sole patterns, Heel cover pattern .
7. Fitting test and wearing test:
  - a) Correctness of last
  - b) Correct position of upper designs
  - c) Quality of upper, lining and bottom materials
  - d) Colour fastness of upper and lining materials, etc.

#### **Practical A (Close Type) :**

Designing of the following:

- a) Derby shoe with Toe cap
- b) Oxford shoe with Brogue
- c) Slip on casual shoe with Mud-gaurd
- d) Girls school shoe

#### **Practical B(Open Type):**

Designing of the following:

- a) Men's chappal– 2 different style
- b) Men's sandals – 2 different style
- c) Children sandal – 2 different styles

#### **TEXT BOOKS:**

1. Somenath Ganguly , 'Comprehensive Footwear Technology' ILTA, Kolkata Publication.

## **FOOTWEAR MATERIAL TESTING**

<b>Subject Code</b>	<b>Course offered in</b>	<b>Duration</b>	<b>1 lecture and 2 practical contact</b>	<b>Full Marks</b>
FWT / 4 / T6 /FMT	2 <sup>nd</sup> Year 2 <sup>nd</sup> Semester	17 weeks	periods per week	100

### **EXAMINATION SCHEME**

**Internal assessment marks 15 and END SEMESTER EXAMINATION MARKS 35, Practical Marks 50**  
**Distribution of Internal assessment marks : Teacher's Assessment 5, Class Test 10,**  
**Practical Marks:**



**Internal assessment of 25 marks** shall be held throughout the Semester on the entire syllabus.

**Distribution of marks: Practical Book – 5; on the spot job – 10; Assignment – 10.**

**External assessment of 25 marks** shall be held at the end of the Semester on the entire syllabus. One job per student from any one of the jobs done is to be performed. Job is to be set by lottery system. **Distribution of marks: On the spot job – 15; Viva-voce – 10.**

SR.	SUBJECT	CREDIT S	PERIODS			EVALUATION SCHEME						
			L	T U	PR	INTERNAL SCHEME			ESE	PR	TW	MARKS TOTAL
						T A	C T	TOT AL				
5	FOOTWEAR MATERIAL TESTING II	3	1		2	5	10	15	35	50		100

## DETAIL COURSE CONTENT

1. Introduction , Objective of carrying out Physical Testing, Development of Physical Testing Methods, Classification of Physical Testing Methods
2. Collection and preparation of Leather samples, sampling position, Conditioning of test pieces, Simple Tools and Apparatus for measuring area, thickness etc of leather, Press and Cutting knives, few thumb tests for leather
3. Testing Equipments: Universal Testing Machine, Lastometer, Wrinklemeter, Wet and dry rub fastness tester, Abrasion Tester, Flexometer, Waterproof ness test.
4. Test Methods for Leather:
  - Measurement of Tensile Strength
  - Percentage Elongation
  - Tear Strength
  - Tongue Tear Test
  - Grain crack
  - Plasticity and Heat setting
  - Wrinkles along feather line
  - Flexing endurance
  - Water proof ness / Water resistance
  - Rubbing damage
  - Upper flexing
5. Test Methods for Total Shoe:
  - Total Shoe Flexing
  - Sole tearing test
6. Test Methods for Sole:
  - Sole flexing
  - Sole abrasion

- Sole cracking

7. Test Methods for Fabrics:

Threads per inch or centimeter of a fabric, Seam Strength, Martindale Abrasion, Staining

8. Test Methods for Synthetic Coated Fabrics:

Breaking Load, Breaking Extension, Tearing Strength, Load and Distention (Lastometer) Seam Strength / Needle Pull out test, Adhesion of Coated film to Fabrics, Flexing, Abrasion

9. Testing and Quality assessment for Adhesives:

Solid content, Viscosity, Drying Time, Tack, Shelf Life, Pot Life, Peel Strength, Strength of Joint in Shear, Hot Melt Adhesive, Bond Strength.

10. Testing and Quality Assessment for Accessories:

**PRACTICAL:**

1. Test Methods for Leather:

Tensile Strength, Elongation at Break, Tear Strength, Grain Crack, Flexing Endurance, Determination of Water Vapour Permeability, Water Proofness, Rubbing Damage, Adhesion to Finish Film.

2. Test Methods for Soling Materials:

Hardness- Shore Hardness- Durometer, Abrasion

3. Test Method for Finish on Shoe:

Flex Resistance, Water Resistance, Wet Rub Resistance, Scuffing/ Snag Test, Shape Retention

**TEXT BOOKS:**

1. S.S. Dutta , 'Physical Testing' ILTA, Kolkata Publication.

**FOOTWEAR MERCHANDISING**

Subject Code      Course Offered in      Course Duration      Lecture contact      2 lecture      Full Marks 50  
 FWT / 4 / S4 / FMe      2<sup>ND</sup> Year 2<sup>ND</sup> Semester      Weeks      periods per week

**EXAMINATION SCHEME**

**Internal assessment marks 15 and END SEMESTER EXAMINATION MARKS 35**

**Distribution of Internal assessment marks : Teacher's Assessment 5, Class Test 10**

SR.	NO	SUBJECT	CREDIT S	PERIODS			EVALUATION SCHEME					MARKS TOTAL	
				L	T U	PR	INTERNAL SCHEME			ESE	PR		TW
							T A	C T	TOT AL				
6		FOOTWEAR MERCHANDISING	2	1	1		5	10	15	35			50

**DETAIL COURSE CONTENT**

**Unit - I**

Merchandising - Terms Pertaining to Merchandising - Requirements of a Purchase Order - Amendment Sheet - Direct Order - Merchant Order - CM Order - CMT Order - Vendor & Sub-Contractor Evaluation Specifications.

**Unit - II**

Functions of a Merchandiser - Types of Samples - Sample Quality and Sample Order - Expediting Procedures - Record Maintenance - Approval, Types of Approvals - Check Points for a Proper Approval - Approving Sewing Operations & Various Processes.

**Unit - III**

Time Management - Production Scheduling - Route Card Format - Accessories

Follow-Up - Various Processes Follow-Up & Practical Check Points.

Pattern Approval - Size Set Approval Procedures - Pre - (Pilot Run Inspection) - Order Execution Procedures.

**Unit IV**

Fashion Merchandising vs. Retail Merchandising, Job Objectives of Retail Merchandising, Definition of Promotional Merchandising, Visual Merchandising Techniques, Sales Focused Merchandising, Outlet Vs. Retail, SWOT Analysis for Retail  
The Advantages of Retail Outlets

**TEXT BOOKS:**

1. Philip Kotler, "Marketing Management ", Prentice Hall Inc 1996.
2. Ruth E Glock and Grace I. Kunz, "Apparel Manufacturing", Prentice Hall, New Jersey, fourth edition, 2005.

**FOOTWEAR CAD 2D PART-I**

<b>Subject Code</b>	<b>Course offered in</b>	<b>Course Duration</b>	<b>3 sessional contact periods</b>	<b>Full Marks</b>
FWT / 4 / S4 / FC1	Part II – 2 <sup>nd</sup> Semester	17 weeks	per week	50

**OBJECTIVE**

On satisfactory completion of the course, the students should be in a position to solve two dimensional drafting and design problems by being able to use Footwear CAD commands to make a 2D drawing, make pattern, Edit pattern, add Sole and Insole. They will also be able to plot drawings, nesting and cutting pattern.

**COURSE & EXAMINATION SCHEDULE**

**Internal assessment of 25 marks**

**Distribution of marks: Lab notebook 5, drawing sheets 20.**

**External assessment of 25 marks** shall be held at the end of the Semester on the entire syllabus. One job per student from any one of the jobs done is to be performed. Job is to be set by lottery system. **Distribution of marks: Drawing sheets – 10; On the spot job – 10; Viva-voce – 5.**

SR.	NO	SUBJECT	CREDIT	PERIODS			EVALUATION SCHEME					MARKS TOTAL	
				L	T	PR	INTERNAL SCHEME			ESE	PR		TW
							T	C	TOTAL				
						A	T						
7		FOOTWEAR CAD 2D PART-I	2			3						50	50

**DETAIL COURSE CONTENT**

**GETTING STARTED – I**

**4**

Starting AutoCAD – AutoCAD screen components – Starting a drawing: Open drawings, Create drawings (Start from scratch, Use a template & Use a wizard) – Invoking commands in AutoCAD –Drawing lines in AutoCAD – Co-ordinate systems: Absolute co-ordinate system, Relative co-ordinate system – Direct distance method – Saving a drawing: Save & Save As – Closing a drawing – Quitting AutoCAD

**GETTING STARTED – II**

INTRODUCTION TO DIFFERENT TYPES TOOL BAR IN FOOTWEAR CAD, DRAW TOOLS, DESIGNING TOOLS, PATTERN TOOLS, GRADING TOOLS, EDITING TOOLS AND MAKING MARKING AND OTHER OUTPUT RELATED TOOLS, IDEAS ABOUT GEOMETRIC PRIMITIVES.

**8**

**DIGITISING**

**12**

START DIGITISING, DIGITISING SUBMENU, FUNCTION OF EACH SUBMENU, SPLINE, CORNER, DIGITISING OF LARGE OBJECT, COORDINATES ETC.

**DRAWING DESIGNING AND EDITING:**

**8**

Point, Line, ARC , ELLIPSE ,elliptical arc, ,Spline, Text, Parallel, Fix Parallel, Variable Parallel, Mirror Translate , Rotate, Fillet , Chamfer, Ideals about Sell and GP and Editing Commands

**PATTERN MAKING:**

**12**

CREATE PATTERN, GENERAL ELEMENTS, ATTACH AND DETACH GP, EXCHANGE BOUNDARY, EXCHANGE AXIS, PATTERN PROPERTIES, ATTACH ELEMENT DETACH ELEMENT AND PATTERN EDITING

**MARKERS:**

**8**

CREATE MARKERS, NOTCH, DRILL, DECORATION, CARRIER LINE (VISIBLE AND INVISBLE)  
MODIFYING MARKERS, CONCEPT OF MARKER LIBRARY

**REFERENCE BOOKS:**

1. 'Training Manual' , Procam for Dimensions 5.2.
2. 'Training Manual' , Shoemaster QS 10.4
3. 'Training Manual' , Delcam Crispin.
4. Mastering AutoCAD 2010 and AutoCAD LT 2010 by George Omura.

**PROFESSIONAL PRACTICE -II**

<b>Subject Code</b>	<b>Course offered in</b>	<b>Duration</b>	<b>2 lecture contact periods</b>	<b>Full Marks</b>
FWT / 4 / T2 / PR2	2 <sup>nd</sup> Year 2nd Semester	17 weeks	per week	50

**OBJECTIVE**

- Acquire information from different sources.
- Prepare notes for given topic.
- Present given topic in a seminar.
- Interact with peers to share thoughts.
- Prepare a report on industrial visit, expert lecture.

**EXAMINATION SCHEME**

**Internal assessment marks : 50**

**Distribution of Internal assessment marks : Visit Report-10, Seminar Presentation 15, Internal Assignment-25**

CREDITS	PERIODS			EVALUATION SCHEME						
	L	TU	PR	INTERNAL SCHEME			ESE	PR	TW	MARKS TOTAL
				TA	CT	TOTAL				
2		2							50	50

**DETAIL COURSE CONTENT**

1. Hook shuttle assembly and needle bar section in lock stitch machine.
  2. Mechanisms of overlock and give the threading procedures for three thread machines.
  3. Mechanisms of overlock and give the threading procedures for five thread machines.
  4. Hook shuttle assembly and needle bar sections in flat lock machines.
  5. Button hole and fixing machines- stitch mechanism, stitch length adjustment – gears.
  6. Double needle lock stitch machine – mechanism, stitch formation.
  7. Mechanism of feed off the arm stitch machine.
  8. Mechanism of Clicking Machine and changing different parameter.
  9. Mechanism of Splitting Machine and changing different parameter.
  10. Mechanism of Skiving Machine and changing different parameter.
  11. Cutting and sharpening mechanisms in strap cutting machine.
  12. Operation and adjusting controlling parameter of Stamping, Thermo Folding, Cementing and Perforating machine.
- Visit a Footwear Making Unit and Footwear Upper Making Shop