

**DIPLOMA IN
FOOTWEAR TECHNOLOGY**

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

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

| CURRICULAR STRUCTURE FOR PART-II (3 rd 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: SIXTH | | | | | | |
| SR. | SUBJECT | CREDIT S | PERIODS | | | EVALUATION SCHEME | | | | | | MARKS TOTAL |
| NO | | | L | TU | PR | INTERNAL SCHEME | | | ESE | PR | TW | |
| | | | | | | TA | CT | TOTAL | | | | |
| 1 | Industrial Management with Marketing | 3 | 3 | 1 | - | 10 | 20 | 30 | 70 | | | 100 |
| 2 | SELECTION OF MATERIAL NON LEATHER AND ACCESSORIES | 4 | 3 | 2 | | 10 | 20 | 30 | 70 | | 25 | 125 |
| 3 | ENTREPRENEURSHIP DEVELOPMENT | 3 | 3 | 2 | | 10 | 20 | 30 | 70 | | 25 | 125 |
| 4 | 1) LEATHER TECHNOLOGY-II OR 2) LEATHER GOODS TECHNOLOGY-II | 4 | 2 | | 3 | 5 | 10 | 15 | 35 | 50 | | 100 |
| 5 | DESIGNING, PATTERN DEVELOPING & MAKING (SPECIAL TYPE) | 4 | | 2 | 6 | | | | | 100 | 25 | 125 |
| 6 | Industrial Project | 3 | | 1 | 5 | | - | | - | 100 | 50 | 150 |
| 7 | VIVA VOCE | 3 | | | | | | | | 100 | | 100 |
| | TOTAL | 24 | 11 | 8 | 14 | 35 | 70 | 105 | 245 | 350 | 125 | 825 |
| 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. | | | | | | | | | | | | |

PART - III SECOND SEMESTER

INDUSTRIAL MANAGEMENT WITH MARKETING

| | | | | |
|------------------------------------|--|--------------------------|---------------------------------------|-------------------|
| Subject Code FWT / 6 / T1 / IMM | Course Offered in 3 rd Year 2 nd Semester | Course Duration Weeks | 4 Lecture contact periods per week | Full Marks 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 S | PERIODS | | | EVALUATION SCHEME | | | | | | |
|------------|--------------------------------------|-------------|---------|--------|----|-------------------|--------|-------|-----|----|----|----------------|
| | | | L | T U | PR | INTERNAL SCHEME | | | ESE | PR | TW | MARKS TOTAL |
| | | | | | | T A | C T | TOTAL | | | | |
| 1 | Industrial Management with Marketing | 3 | 3 | 1 | - | 10 | 20 | 30 | 70 | | | 100 |

DETAIL COURSE CONTENT

INDUSTRIAL MANAGEMENT :

1) Introduction to Management Science :

Principles & functions of Management - Contribution of different Management Writers (Henry Fayol , F.W.Taylor, Max Weber) in the field of Management Science.

2) Organisational Behaviour :

Behaviour – Motivation – Motivational Theories – Morale - Leadership –Communication.

3) Human Resource Management :

Human Resource Management – Concept & Definition – Function – Recruitment – Training – Performance Appraisal – Industrial Safety.

4) Material Management :

Material Management – Concept & Definition – Functions – Purchase – Store - Inventory Control – ABC Analysis – VED Analysis.

5) Introduction to Industrial Engineering (Basic Idea), PRINCIPLES OF SHOP FLOOR SUPERVISION WITH EMPHASIS ON 5S, SAFETY AND MOTIVATION

MARKETING :

1) Introduction to Marketing Footwear.

2) Understanding the Marketing Mix (Product, Price, Place & Promotion) - specific consequences of footwear marketing

3) The Marketing Environment - Impact of various Macro & Micro Environment factors on marketing decisions.

4) Market Segmentation & Market Targeting

5) Ability to read trends of Footwear in respect of fashion, style & economy and setting marketing strategy accordingly.

6) Marketing techniques for Footwear – through shops (own & others), stalls, through wholesalers, through traders, through Govt. Initiatives, through Export agents & Export buyers.

7) Advertising Management – Importance- Deciding the media.

8) Sales promotion – Importance – Tools & Techniques of Sales promotion- Organising Sales Promotion Campaign.

TEXT BOOKS:

1. Philip Kotler, “Marketing Management “, Prentice Hall Inc 1996.

SELECTION OF MATERIAL NON LEATHER AND ACCESSORIES

| | | | | |
|---------------------|-------------------------------------|------------------------|---------------------------------|-------------------|
| Subject Code | Course offered in | Course Duration | 3 lecture + 3 tw contact | Full Marks |
| FWT / 6 / T1 / SMNL | Part III – 2 nd Semester | 17 weeks | periods per week | 125 |

EXAMINATION SCHEME

| SR. | SUBJECT | CREDIT S | PERIODS | | | EVALUATION SCHEME | | | | | | |
|-----|---|-------------|---------|--------|----|-------------------|--------|-------|-----|----|----|----------------|
| | | | L | T U | PR | INTERNAL SCHEME | | | ESE | PR | TW | MARKS TOTAL |
| | | | | | | T A | C T | TOTAL | | | | |
| 2 | SELECTION OF MATERIAL NON LEATHER AND ACCESSORIES | 4 | 3 | 2 | | 10 | 20 | 30 | 70 | | 25 | 125 |

Internal assessment marks 55 and END SEMESTER EXAMINATION MARKS 70

Distribution of Internal assessment marks : Teacher's Assessment 10, Class Test 20, Term work 25

DETAIL COURSE CONTENT

Non-Leather Materials :-

- Artificial Leathers
- Leather Boards
- Cellulose Board
- Card Board
- RANDOMA
- Blended Board.

Fabrics:-

- Introduction
- Fibres – Its Classification
- Classification of Fabrics
- Warp, Weft, selvedge, Loom movement in weaving
- Basic Woven Designs – Plain weave, Twill Weave, Drill Weave, Satin Weave.

Special Fabrics:-

- Adhesive backing (Thermoplastic, Latex Treated)
- Toe – Puff and Counter materials
- BUCKRAM
- Stay Fabrics
- Elasticised Lining
- Pile Fabrics.

Rubber:

Introduction & Origin;
 Use of different rubber products [Solid Rubber, MCR, Plantation Crape, Resin Rubber];
 Composition of NR & its primary processing;
 Basic chemistry of Vulcanization, Compounding of Rubber, Different ingredient used in rubber compounding;
 Manufacturing process of TPR, Crape Rubber, [preparation, compounding, shaping, vulcanizing]

POLYMER

Introduction, Classification of Polymers, Uses of Different Polymeric Materials, Polymerization, Different Polymerization Technique,
 Introduction, Preparation and Uses of different polymers like PVC, PU, EVA, PVA,

Material and Quality Requirement for Different Footwear Components;

- Insoles;
- Soles;
- Stiffeners;
- Toe-puffs;
- Heels;

Shanks;
TERM WORK

- Identification of different Non-Leather Materials .
- Identification of Fabrics and Special Fabrics.
- Identification of different types of Soling Material.
- Identification of different types of Reinforcement material.

Recommended Books:

1. Dutta. S.S., "An Introduction to the Principles of Leather Manufacture". ILTA, Kolkata Publication.
2. Sarkar K.T. " Theory & Practice of Leather Manufacture". CLRI, Publication.
3. Somenath Ganguly , 'Comprehensive Footwear Technology' ILTA, Kolkata Publication.

ENTREPRENEURSHIP DEVELOPMENT

| | | | | |
|---------------------|-------------------------------------|------------------------|---------------------------------|-------------------|
| Subject Code | Course offered in | Course Duration | 3 lecture + 1 TW contact | Full Marks |
| FWT / 6 / T1 / EDP | Part III – 2 nd Semester | 17 weeks | periods per week | 125 |

EXAMINATION SCHEME

Internal assessment marks 55 and END SEMESTER EXAMINATION MARKS 70

Distribution of Internal assessment marks : Teacher’s Assessment 10, Class Test 20, Term work 25

| SR. | SUBJECT | CREDIT S | PERIODS | | | EVALUATION SCHEME | | | | | | MARKS TOTAL |
|-----|---------------------------------|-------------|---------|--------|----|-------------------|--------|-------|-----|----|----|----------------|
| | | | L | T U | PR | INTERNAL SCHEME | | | ESE | PR | TW | |
| | | | | | | T A | C T | TOTAL | | | | |
| 3 | ENTREPRENEURSHIP DEVELOPMENT | 3 | 3 | 2 | | 10 | 20 | 30 | 70 | | 25 | 125 |

DETAIL COURSE CONTENT

UNIT I: INTRODUCTION TO ENTREPRENEUR

- Concept of Entrepreneur
- Functions of Entrepreneur
- Types of Entrepreneur
- Development of Entrepreneurship

UNIT II: CREATIVITY AND INNOVATION

- Exercises on Creativity
- Value Analysis Innovation and Entrepreneurship
- Modules of Innovation

UNIT III: BUSINESS PLANNING PROCESS

- Meaning of business plan
- Business plan process
- Production/operations plan
- Financial Plan
- Final project report with feasibility study

UNIT IV: ENTREPRENEURSHIP DEVELOPMENT AND ROLE OF GOVERNMENT

- Role of Central Government and State Government in promoting Entrepreneurship
- Role of agencies in the Entrepreneurship Development

UNIT V: INTERNATIONAL ENTREPRENEURSHIP OPPORTUNITIES

- Importance of international business to the firm
- Stages of economic development

Direct foreign investment

UNIT VI: MANAGING GROWTH

Management roles and functions in a small business
Productivity and environment
Joint ventures- types
Acquisitions and merger

TERM WORK: Student has to make individual project report for their business.

TEXT BOOKS:

1. Prasanna Chandra, "Project – Preparation, Appraisal and Implementation", Tata McGraw Hill, New Delhi, 1990.
2. Philip Kotler, "Marketing Management", Prentice Hall, 2001.

LEATHER TECHNOLOGY – II (ELECTIVE)

| | | | | |
|---------------------|-------------------------------------|------------------------|--------------------------------|-------------------|
| Subject Code | Course offered in | Course Duration | 2 lecture + 3 PRACTICAL | Full Marks |
| FWT / 6 / T4 / ELT2 | Part III – 2 nd Semester | 17 weeks | contact periods per week | 50+50 |

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. | NO. | SUBJECT | CREDIT S | PERIODS | | | EVALUATION SCHEME | | | | | | |
|-----|-----|-----------------------------|----------|---------|-----|----|-------------------|-----|-------|-----|----|----|-------------|
| | | | | L | T U | PR | INTERNAL SCHEME | | | ESE | PR | TW | MARKS TOTAL |
| | | | | | | | T A | C T | TOTAL | | | | |
| 4 | 3) | LEATHER TECHNOLOGY-II OR | 4 | 2 | | 3 | 5 | 10 | 15 | 35 | 50 | | 100 |

DETAIL COURSE CONTENT

1. Post tanning operations (Chemical & Mechanical Processes) for Leather making. Neutralisation, Bleaching, Dyeing, Fat liquoring, Curryng, Theory of Lather Drying.
2. Leather Finishing techniques & various grain pattern: Theory of Finishing, Finishing materials, Finishing techniques.

PRACTICAL:

Visiting Tanneries; Thorough study of practical work procedures including handling; Preparing 'Practical work book'.

Recommended Books:

1. Dutta. S.S., "An Introduction to the Principles of Leather Manufacture".
2. Sarkar K.T. " Theory & Practice of Leather Manufacture".

LEATHER GOODS TECHNOLOGY – II (ELECTIVE)

| | | | | |
|---------------------|-------------------------------------|-----------------|-----------------------------|------------|
| Subject Code | Course offered in | Course Duration | 2 lecture + 3 PRACTICAL | Full Marks |
| FWT / 6 / T4 / ELG2 | Part III – 2 nd Semester | 17 weeks | contact periods per week | 50+50 |

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. | NO. | SUBJECT | CREDIT S | PERIODS | | | EVALUATION SCHEME | | | | | | |
|-----|-----|-----------------------------|----------|---------|-----|----|-------------------|-----|-------|-----|----|----|-------------|
| | | | | L | T U | PR | INTERNAL SCHEME | | | ESE | PR | TW | MARKS TOTAL |
| | | | | | | | T A | C T | TOTAL | | | | |
| 4 | 4) | LEATHER GOODS TECHNOLOGY-II | 4 | 2 | | 3 | 5 | 10 | 15 | 35 | 50 | | 100 |

DETAIL COURSE CONTENT

- i) Manufacturing Processes : Introduction; Designing; Pattern Developing; Material Cutting; Splitting, Preparation; Grooving, Skiving, Edge Treatment, Folding & Tuning Over, Cementing & bonding, Creasing, Piping, Fixing findings & fasteners, Assembling, Different types of seam edge, Finishing.
- ii) Construction : Methods : simple stitched, moulded, Built-up, Box work; Designing & Styling: Introduction, Feature of style, Elements of style; Designing & Styling of Leather Goods – Introduction, Hand Bags, Belts, Billfolds, Wallets, Purse, Folio, pouch, Briefcase, Travel Bag.
- iii) Quality Control : Introduction, Material Control, In process quality Control; Finished Article quality control.
- iv) Management & Marketing : Management of Leather Goods, establishments; Marketing: Internal (Retail, Wholesale), Export & its strateg).

PRACTICAL:

- ii) Designing and Manufacturing: small Goods – Ladies purse, Watch Strap..

TEXT BOOKS:

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

DESIGNING, PATTERN DEVELOPING & MAKING (SPECIAL TYPE)

| | | | | |
|---------------------|-------------------------------------|-----------------|-----------------------------|------------|
| Subject Code | Course offered in | Course Duration | 8 sessional contact periods | Full Marks |
| FWT / 6 / S2 / DPDM | Part III – 2 nd Semester | 17 weeks | per week | 125 |

EXAMINATION SCHEME

Practical Marks:

Internal assessment of 75 marks shall be held throughout the Semester on the entire syllabus.

Distribution of marks: Practical Book – 10; on the spot job – 20; Assignment (Designing 10 + Making 10), Term Work (Designing) 25

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 | PERIODS | | | EVALUATION SCHEME | | | | | | |
|-----|---|--------|---------|---|-------|-------------------|---|-------|-----|-----|----|-------------|
| | | | L | T | PR | INTERNAL SCHEME | | | ESE | PR | TW | MARKS TOTAL |
| | | | | | | T | C | TOTAL | | | | |
| NO | S | S | A | T | TOTAL | | | | | | | |
| 5 | DESIGNING, PATTERN DEVELOPING & MAKING (SPECIAL TYPE) | 4 | | 2 | 6 | | | | | 100 | 25 | 125 |

DETAIL COURSE CONTENT

Designing (Direct Method):

- i) Sports shoes
- ii) California constructed shoes
- iii) Ankle Boot

Making :

- i) California constructed shoes
- ii) Ankle Boot
- iii) Sports shoes

TEXT BOOKS:

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

INDUSTRIAL TRAINING & PROJECT

| | | |
|--------------------|----------------------------|------------|
| Subject Code | Course offered in | Full Marks |
| FWT / 6 / S2 / ITP | Part – III Second Semester | 100+50 |

EXAMINATION SCHEME

| SR. | SUBJECT | CREDIT | PERIODS | | | EVALUATION SCHEME | | | | | | |
|-----|--------------------|--------|---------|---|-------|-------------------|---|-------|-----|-----|----|-------------|
| | | | L | T | PR | INTERNAL SCHEME | | | ESE | PR | TW | MARKS TOTAL |
| | | | | | | T | C | TOTAL | | | | |
| NO | S | S | A | T | TOTAL | | | | | | | |
| 6 | Industrial Project | 3 | | 1 | 5 | | - | | - | 100 | 50 | 150 |

Industrial Training for 1 month (at least) in reputed Footwear Organization and preparing an individual project report on any topic as guided by CFTC / concerned Organization. During Examination they have to produce an Industrial Training Report and Seminar Presentation on individual Project.

TERM WORK: Industrial Training Report and Seminar Presentation on individual Project.

VIVA VOCE

| | | |
|---|---|---------------------------------|
| Subject Code FWT / 6 / S2 / VVo | Course offered in Part – III Second Semester | Full Marks 100 |
|---|---|---------------------------------|

EXAMINATION SCHEME

| SR. | SUBJECT | CREDIT S | PERIODS | | | EVALUATION SCHEME | | | | | MARKS TOTAL |
|--------|-----------|-------------|---------|--------|----|-------------------|--|--|-----|-----|----------------|
| | | | L | T U | PR | INTERNAL SCHEME | | | ESE | PR | |
| T A | C T | TOTAL | | | | | | | | | |
| 7 | VIVA VOCE | 3 | | | | | | | | 100 | 100 |

COURSE CONTENT

The syllabi of all the theoretical and sessional subjects taught in the three years of diploma education.

EXAMINATION SCHEME

The Final Viva-Voce Examination shall take place at the end of the Part – III Second Semester. It is to be taken by one External and one Internal Examiner. The **External Examiner** is to be from Industry / Engineering College / University / Government Organisation and he / she should give credit out of **50 marks**; whereas, the **Internal Examiner** should normally be the Head of the Department and he / she should give credit of **50 marks**. In the absence of the Head of the Department the senior most lecturer will act as the Internal Examiner