SYLLABUS

M.Sc. Clothing and Textiles (Home Science)

Department of Home Science

w.e.f. Academic Year 2015-16
## Semester Wise Distribution of Courses and Credits

### Semester I

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Paper</th>
<th>Credits</th>
<th>Evaluation Scheme</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>External</td>
<td>Internal</td>
</tr>
<tr>
<td>HCT101</td>
<td>Textiles &amp; Costumes: Historical Perspectives</td>
<td>4</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>HCT102</td>
<td>Research Methods &amp; Statistics</td>
<td>4</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>HCT103</td>
<td>Textile Chemistry</td>
<td>4</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>HCT104</td>
<td>Pattern Making &amp; Construction Techniques</td>
<td>4</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>HCT105</td>
<td>Textile Chemistry (Practicals)</td>
<td>4</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>HCT106</td>
<td>Pattern Making &amp; Construction Techniques (Practicals)</td>
<td>4</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>24</td>
<td>480</td>
<td>120</td>
</tr>
</tbody>
</table>

### Semester II

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Paper</th>
<th>Credits</th>
<th>Evaluation Scheme</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>External</td>
<td>Internal</td>
</tr>
<tr>
<td>HCT201</td>
<td>Entrepreneurship Development in Clothing and Textiles</td>
<td>4</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>HCT202</td>
<td>Social and Psychological Aspects of Clothing</td>
<td>4</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>HCT203</td>
<td>Dyeing and Printing of Textiles</td>
<td>4</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>HCT204</td>
<td>Apparel And Textile Designing</td>
<td>4</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>HCT205</td>
<td>Dyeing and Printing of Textiles (Practicals)</td>
<td>4</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>HCT206</td>
<td>Apparel And Textile Designing (Practicals)</td>
<td>4</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>24</td>
<td>480</td>
<td>120</td>
</tr>
</tbody>
</table>
### Semester III

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Paper</th>
<th>Credits</th>
<th>Evaluation Scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCT301</td>
<td>Textile Industry in India</td>
<td>4</td>
<td>80 20 100</td>
</tr>
<tr>
<td>HCT302</td>
<td>Fashion Marketing And Merchandising</td>
<td>4</td>
<td>80 20 100</td>
</tr>
<tr>
<td>HCT303</td>
<td>Technical Textiles</td>
<td>4</td>
<td>80 20 100</td>
</tr>
<tr>
<td>HCT304</td>
<td>Fashion Designing</td>
<td>4</td>
<td>50 50 100</td>
</tr>
<tr>
<td>HCT305</td>
<td>Fashion Designing (practical)</td>
<td>4</td>
<td>50 50 100</td>
</tr>
<tr>
<td>HCT306</td>
<td>Internship</td>
<td>2</td>
<td>75 75 150</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>24</strong></td>
<td><strong>415 185 600</strong></td>
</tr>
</tbody>
</table>

### Semester IV

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Paper</th>
<th>Credits</th>
<th>Evaluation Scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCT401</td>
<td>Advance Draping</td>
<td>4</td>
<td>80 20 100</td>
</tr>
<tr>
<td>HCT402</td>
<td>Textile Testing</td>
<td>4</td>
<td>80 20 100</td>
</tr>
<tr>
<td>HCT403</td>
<td>Textile Testing (Practicals)</td>
<td>4</td>
<td>50 50 100</td>
</tr>
<tr>
<td>HCT404</td>
<td>Advance Draping (practicals)</td>
<td>4</td>
<td>50 50 100</td>
</tr>
<tr>
<td>HCT405</td>
<td>Dissertation</td>
<td>8</td>
<td>100 100 200</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>24</strong></td>
<td><strong>360 240 600</strong></td>
</tr>
</tbody>
</table>
First semester
Detailed Syllabus

Course code: HCT101

Paper: Textiles and Costumes:
Historical Perspectives

Duration of Examination: 3hrs.
Credits- 04

Teaching Periods: 6/week

Max-marks-100
a) Semester Exam: 80
b) Sessional Assessment: 20

Syllabus for the examination to be held in years Dec. 2015, Dec. 2016 and Dec. 2017

Objectives:

1. To enable students to gain knowledge on historic costumes and textiles of India
2. To study the design and constructional details of textiles & costume of India

UNIT: I

- History of Clothing & Textiles, Introduction, Pre-historic reference, development, adoption of fibrous apparel, initial manufacture of clothes.
- Earlier decoration of textiles
- Types of ornaments used in the beginning
- Tattooing, mutilation and other methods of skin decoration.

Unit - II

Historic approach from ancient period to 20th Century
- Dress in Harappa and Mohan-Jo-Daro.
- Dress of Aryans.
- Dress during 600 BC to 320 AD (Buddhist & Jains).
- Dress during 320 AD to 1100 AD (Brahmin Contest).
- Dress during 1100 AD to 1730 AD (Islamic Influence).
- Dress during 1730 AD to 1947 AD (British Period).

Unit – III

Study of regional costumes of Indian states in relation to fabrics, motifs and related accessories of:
- Northern (Jammu and Kashmir, Punjab, H.P)
- Western (Gujarat, Rajasthan)
- Eastern (Nagaland, Manipur, Meghalaya, Sikkim, West Bengal)
- Central (Maharashtra, Madhya Pradesh)
- Southern (Andhra Pradesh, Tamil Nadu, Karnataka, Kerala)

Unit – IV

Study of Traditional textiles of India
- Hand woven Textiles of India
Dacca Muslins, Baluchar, Buttedar, Chanderi, Maheshwari Sarees, Patola, Ikkat, Bandhani, Paithani & Pitamber, Brocades Of Banaras, Mulmul, Jamdani, Himrus & Amrus, Pochampalli, Kashmir shawls and Carpets

- Dyed and Printed textiles of India
  - Tie and Dye, Batik, Madhubani Painting, Kalamkari, Calico prints of Samba (Jammu)

- Embroidered textiles of India:
  - Kashida of Kashmir, Kinari work of Jammu, Embroidery on shawls, Phulkari of Punjab, Kantha of Bengal, Chamba Rumals, Chikankari, Pipli Work, Sindhi Embroidery, Embroidery of Kutch.

**Note for paper setting:**

The question paper will consist of two sections

Section I (Weightage = 60 marks): Will consist of 8 long answer questions (2 from each unit with internal choice within the unit). Each question will be of 15 marks. The candidate will be required to answer one question from each unit (total 4 questions).

Section II (Weightage = 20 marks): Will consist of 8 short answer questions (2 from each unit, proportionately spread over the unit). Each question will be of 5 marks. The candidate will be required to answer any 4 questions.

**Distribution of Internal marks (20 marks)**

Class Test - 10 marks
Two written papers(assignment) – 10 (5 marks each)

**REFERENCES**

First semester
Detailed Syllabus

Course code: HCT102
Paper: Research Methods & Statistics
Duration of Examination: 3hrs.
Credits- 04
Teaching Periods: 6/week
Max-marks-100
a) Semester Exam: 80
b) Sessional Assessment: 20

Syllabus for the examination to be held in years Dec. 2015, Dec. 2016 and Dec. 2017

Objectives:

1. Underline the significance of research Methodology in research.
2. Develop ability to construct data gathering, instruments appropriate to the research design.
3. Develop ability present and interpret data in a research report or thesis.
4. Understand the role of statistics in research.
5. Apply statistical techniques to research data for analyzing and interpreting data meaningfully

Unit I
1.1 Nature and purpose of scientific enquiry, definition and objectives of research, Need for research in Home Science
1.2 Basic concepts of research: Constructs, Variables, Theory, facts, Hypothesis, Research problem, steps of a research process
1.3 Research designs-Concept and Types, Research designs, on basis of application- pure and applied, on the basis of Techniques / Methodology – exploratory and descriptive, Qualitative and Quantitative, experimental.

Unit II
2.1 Sampling : Population and sample, Probability and non-probability sampling techniques.
2.2 Data collection- Primary and secondary sources of data, Classification, tabulation and graphical presentation of data.
2.3 Statistics- Definition, Descriptive and Inferential, Measures of central tendency ( mean, mode, median), measures of variation( Range and standard deviation)

Unit III
3.1 Normal distribution curve
3.2 Hypothesis testing: procedure, types of errors, one tailed/ two tailed tests, standard error, levels of significance
3.3 Concept of parametric and non-parametric tests, Z test, t test, Chi Square test, ANOVA (one way/two way)

Unit IV
4.1 Correlation and regression: Concept, Karl Pearson’s and Spearman’s methods, Regression and prediction
4.2 Usage of Computers and internet in research and statistical analysis
4.3 Scientific writing: Types of scientific writing-Written, oral and poster presentation, drafting a research report.

**Note for paper setting:**
The question paper will consist of two sections
Section I (Weightage = 60 marks): Will consist of 8 long answer questions (2 from each unit with internal choice within the unit). Each question will be of 15 marks. The candidate will be required to answer one question from each unit (total 4 questions).
Section II (Weightage = 20 marks): Will consist of 8 short answer questions (2 from each unit, proportionately spread over the unit). Each question will be of 5 marks. The candidate will be required to answer any 4 questions.

**Distribution of Internal marks (20 marks)**
Class Test - 10 marks
Two written papers(assignment) – 10 (5 marks each)

**References:**
- Ahuja, Ram (2009, reprint),Research Methods, Rawat Publications
- Kerlinger, Fred N (2011, reprint) Foundations of Behavioral Research,
First semester
Detailed Syllabus

Course code: HCT103  
Paper: Textile Chemistry

Duration of Examination: 3hrs.  
Credits- 04

Teaching Periods: 6/week  
Max-marks-100
a) Semester Exam: 80  
b) Sessional Assessment: 20

Syllabus for the examination to be held in years Dec. 2015, Dec. 2016 and Dec. 2017

Objectives
1. To enable student to study polymer chemistry of textile fibre.
2. To acquire the chemical knowledge of different type of fibers.
3. To gain knowledge of chemistry of finishes.

Unit I
- Introduction: need to study textile chemistry
- Polymer Chemistry:
  - Polymer, methods of polymerization, polymerization process.
  - Definition of co-polymer, oligomer, graft-co-polymer.
  - Degree of Polymerization, use of X-Ray diffraction method in investigating
  - Molecular structure of textile fibres.
  - Orientation and crystalinity of polymers their influence on fibre properties.

Unit II
- Chemistry of Natural Fibres:
  - Protein fibres: - (Wool & silk) Chemical composition, molecular structure, manufacturing and uses; physical & chemical properties action of acids & alkalis and other chemicals. Felting of wool, degumming and weighting of silk, shrink proofing of wool.
  - Mineral fibres: (asbestos, glass, Gold and silver) in brief.

Unit III
- Chemistry of Man-made and synthetic fibres:
  - Regenerated Cellulosic fibres: - Viscose-rayon, cuprammonium rayon, cellulose acetate, Polynosic - properties, longitudinal and cross sectional view. Chemical composition, molecular structure, manufacture and uses.
  - Synthetic Fibres: - Polyester (Terylene, Dacron) Polyamide (Nylon 6, Nylon 66) and acrylonitrile fibres. Chemistry of fibres: - Raw material, manufacturing process from polymer to fibre stage. Physical & chemical properties their uses in textile & clothing. Comparison of wet, dry and melt spinning methods.
Unit – IV

- Chemistry of Finishes:
  - Importance & classification
    - Mechanical finishes: Singeing, calendering, tentering, crabbing, decating, glazing, schreinerizing, embossing, moiring, cireing, beetling, raising, napping, sanding, crepe, shearing, weighting.
    - Chemical finishes: - Mercerization, parchmentisation, wrinkle resistant finishes, chlorination, burnt-out effect.
    - Special purpose finishes : - Flame retardant, water repellant, antistatic, stain & soil release, moth proofing, mildew proofing, antimicrobial, absorbency finishes.

Note for paper setting:
The question paper will consist of two sections
Section I (Weightage = 60 marks): Will consist of 8 long answer questions (2 from each unit with internal choice within the unit). Each question will be of 15 marks. The candidate will be required to answer one question from each unit (total 4 questions).
Section II (Weightage = 20 marks): Will consist of 8 short answer questions (2 from each unit, proportionately spread over the unit). Each question will be of 5 marks. The candidate will be required to answer any 4 questions.

Distribution of Internal marks (20 marks)
Class Test - 10 marks
Two written papers(assignment) – 10 (5 marks each)

REFERENCES
First semester
Detailed Syllabus

Course code: HCT 104  

Paper: Pattern Making & Construction Techniques

Duration of Examination: 3hrs.

Credits- 04

Max-marks-100

a) Semester Exam: 80

b) Sessional Assessment:20

Teaching Periods: 6/week

Syllabus for the examination to be held in years Dec. 2015, Dec. 2016 and Dec. 2017

Objectives:
1. To enable students to select design and draft patterns for various garment based on body measurements.
2. To gain experience in handling of different fabrics and advanced construction techniques.
3. To develop understanding of the relation of the pattern and garment to the body measurement.

Unit –I
- Tools and equipment used for pattern making and clothing construction.
  - Varieties and special attachment.
  - Common problems causes and remedies.
- Importance of body measurement
  - how to take body measurements for different types of garment
  - taking and comparing measurements.

UNIT – II
- Working with patterns:
  - Reading pattern envelope, understanding pattern markings
- Pattern making – principles, methods of making patterns, Use of commercial patterns.
- Pattern alteration, lengthening and shortening patterns, making bust, shoulder, crotch length alteration, increasing and decreasing waistline and hipline, neckline and sleeve alteration.

UNIT-III
- Pattern Grading-
- Introduction to grading
  - General Principles
  - Practical principles
- Basic grading applications-Master grades, Basic whole back, Front, Sleeve Collar, Neck piece. Different methods of grading patterns.
  - Fabric Types: their selecting, handling of different type of fabric. Preparation of fabric for cutting, layouts for different type of garment, basic cutting procedures (tracing, pinning and cutting) working with checks and stripes.
UNIT – IV
- Fitting – factors affecting good fit, common problems encountered and remedies for fitting defects (upper and lower garments)
- Costing-
  - Method of costing
  - Element cost for fabric
  - Calculating cost for a fabric

Note for paper setting:
The question paper will consist of two sections

Section I (Weightage = 60 marks): Will consist of 8 long answer questions (2 from each unit with internal choice within the unit). Each question will be of 15 marks. The candidate will be required to answer one question from each unit (total 4 questions).

Section II (Weightage = 20 marks): Will consist of 8 short answer questions (2 from each unit, proportionately spread over the unit). Each question will be of 5 marks. The candidate will be required to answer any 4 questions.

Distribution of Internal marks (20 marks)
Class Test - 10 marks
Two written papers(assignment) – 10 (5 marks each)

References:
1 Doling Kindrsley, The complete book of sewing.
2 Erwin Mable D. Practical Dress Design, New ork. Man Milan Co. 1964
3 Gerry Cookin, Pattern Grading for women’s clothes, published by Om book service.
4 Gerry Cookline, Garments-Technology for Fashion Designers.
5 Juverk W.B. Easy Cutting.
7 Reader Digest: Complete guide to sewing, Reader’s Digest Association, 1982
9 Singers Sewing Book
10 Zarpekar K.R. System of cutting Bombya, Zarpekar Tailoring College.
First Semester

Course Code: HCT105 Paper: Textile Chemistry (Practical)

Credits- 04 Max-marks-100

a) Semester Exam: 50
b) Sessional Assessment: 50

Teaching Periods: 9/week

- Identification of fibres: - (Cotton, Polyester, Viscose, Polyamide, silk, Wool etc.) Use of burning test, Microscopic examination, chemical test & solubility.
- Qualitative & Quantitative analysis of binary blends - Polyester/ cotton, Polyester/viscose, polyester/wool, cotton/ wool.
- Effect of degumming on silk.
First semester

Course Code: HCT106  Paper: Pattern marking & construction Techniques (Practical)

Credits- 04  Max-marks-100
a) Semester Exam: 50
b) Sessional Assessment: 50

Teaching Periods: 9/week

- Making patterns for different type of garments (child’s bodice block, adults bodice block, salwar and kameez block)
- Grading of patterns.
- Designing through flat pattern - Dart manipulation
- Preparing envelop with details.
- Designing, cutting and stitching of any one garment
Second Semester  
Detailed Syllabus 

Course code: HCT 201  
Paper: Entrepreneurship Development in Textile and Clothing 

Duration of Examination: 3hrs.  
Credits- 04  
Max-marks-100
   a) Semester Exam: 80  
   b) Sessional Assessment:20 

Teaching Periods: 6/week 

Syllabus for the examination to be held in years Dec. 2016, Dec. 2017 and Dec. 2018 

Objectives :-
   1. To promote entrepreneurship skills among student 
   2. To understand the process and procedure of setting up small enterprises. 
   3. To develop management skills for entrepreneurship developments. 

UNIT-I

   ❖ Introduction to Retailing, Definition ,Functions performed by retailers 
   ❖ Multi channel Retailing, Store channel ,Catalog channel, Internet channel 
   ❖ Customer Buying Behavior ,The buying process ,Types of buying decisions 
   ❖ Social factors influencing the buying process ,Family, Reference groups, Culture 

UNIT-II

   ❖ Retail locations ,Types of locations ,Free standing sites, City or Town locations 
   ❖ Evaluating a site for locating a retail store,Traffic flow and accessibility,location characteristics 
   ❖ Negotiating a lease, types of Leases ,Terms of Lease 

UNIT –III

   ❖ Customer Relationship Management ,Collecting customer data ,Analyzing customer data and identifying target customers, converting good customers into best customers ,dealing with unprofitable customers 
   ❖ Retail Pricing ,Considerations in setting retail prices , Price adjustments ,Markdowns, Variable pricing and price discrimination ,Pricing Strategies ,High / Low Pricing,
Everyday low pricing, Pricing Techniques for increasing sales, Leader pricing, Price lining, Odd pricing

UNIT - IV
- Managing the Boutique, Store management responsibilities, Controlling costs, Labour scheduling, store maintenance, Reducing inventory shrinkage
- Boutique Design, Layouts, signage and Graphics, Feature Areas, Space management, Visual Merchandising, Fixtures, Presentation techniques
- Customer Service strategies, Service recovery Listening to customers, Providing a fair solution, Resolving problems quickly.

Note for paper setting:
The question paper will consist of two sections

Section I (Weightage = 60 marks): Will consist of 8 long answer questions (2 from each unit with internal choice within the unit). Each question will be of 15 marks. The candidate will be required to answer one question from each unit (total 4 questions).

Section II (Weightage = 20 marks): Will consist of 8 short answer questions (2 from each unit, proportionately spread over the unit). Each question will be of 5 marks. The candidate will be required to answer any 4 questions.

Distribution of Internal marks (20 marks)

Class Test - 10 marks
Two written papers (assignment) – 10 (5 marks each)

REFERENCES :-
4) Entrepreneurs only, Harell, career Publications., New Jersey, 1995
6) Entrepreneurship and Rural Markets, Rajagopal.
8) Retailing Management by Michael Levy, Barton A Weitz, Ajay Pandit
9) The Business of Fashion designing, Manufacturing and Marketing by Leslie Davis Burns, Nancy O Bryant
10) Inside fashion Business by Dickerson Kitty G
Course code: HCT202  
Paper: Social And Psychological Aspects Of Clothing

Duration of Examination: 3hrs.
Credits- 04  
Max-marks-100
a) Semester Exam: 80
b) Sessional Assessment:20

Teaching Periods: 6/week

Syllabus for the examination to be held in years Dec. 2015, Dec. 2016 and Dec. 2017

Objectives:

1. To study origin and theories of clothing
2. To enable student to study the psychological and social aspect of clothing in social situation.

UNIT – I
 Origin of Clothing
 Theories of clothing – theory of modesty, immodesty, protection, adornment, combined need theory, other theories in fashion.
 Relation between clothing and other disciplines.
 Clothing and first impressions.

UNIT – II
 Relation between clothing and the wearer
  • Personality and self concept.
  • Motivation in clothing choices.
  • Individual values, interests and attitudes related to clothing.
 Behaviour and clothing choices, practices and effect and clothing on the individual.
 Clothing and Society.
  • Clothing and social behavior
  • Clothing influenced by religion and culture.
  • Clothes and conformity
  • Clothes and occupation
 Uniforms in schools and college.

UNIT-III
 Psychological aspects of clothing-
  • For adolescents, adults and old age: self respect, human dignity, emotional response, sex desirability, self expression, individuality.
 Psychological effect of clothing on children.
 Importance of effect of colour in clothing.
• Clothes and colour and impact of colour.
  • Sex differences in use of colour.
  • Colours for different occasions and ceremonies.

UNIT-IV
  ❖ Sociological aspects of clothing-changes in society and culture.
    • Meaning of style, fashion and fad
    • Influence of fashion and fashion changes,
    • Role of uniform, occupational clothes, national clothes.
    • Class distinction and socio- economic status.
    • Family and social influencing.

Note for paper setting:

The question paper will consist of two sections

Section I (Weightage = 60 marks): Will consist of 8 long answer questions (2 from each unit with internal choice within the unit). Each question will be of 15 marks. The candidate will be required to answer one question from each unit (total 4 questions).

Section II (Weightage = 20 marks): Will consist of 8 short answer questions (2 from each unit, proportionately spread over the unit). Each question will be of 5 marks. The candidate will be required to answer any 4 questions.

Distribution of Internal marks (20 marks)

Class Test - 10 marks

Two written papers(assignment) – 10 (5 marks each)

REFERENCES:
Second Semester
Detailed Syllabus

Course code: HCT203  
Paper: Dyeing and Printing Of Textiles

Duration of Examination: 3hrs.
Credits- 04  
Max-marks-100
a) Semester Exam: 80  
b) Sessional Assessment:20

Teaching Periods: 6/week

Syllabus for the examination to be held in years Dec. 2016, Dec. 2017 and Dec. 2018

Objectives :-

1. To understand the theory and principles of dyeing and printing in relation to various classes of dyes
2. To develop technical competency in dyeing and printing with different dyes on different fabrics.

UNIT – I

❖ Preparation of fabric for dyeing and printing
   • Scouring, bleaching, desizing
   • Reagents used and their application
   • Specific preparatory steps for cotton, wool, silk and man-made fibres.
   • Equipments used at cottage and industrial level for yarn, fabric and price goods.

❖ Dyes
   • Classification, definition, components.
   • Colour and chemical constitution of dyes, C.I generic number.
   • Dyeing with chemical dyes.
   • Direct, reactive, vat, sulphur, azo (for cellulosic).
   • Acid, metal complex, chromeomordant (for proteins).
   • Basic, disperse (for man-made).

❖ Dyeing auxiliaries

UNIT – II

❖ Dyeing with Natural dyes
   • Use of pigments

❖ Dyeing machines for fiber, yarn and fibers.
   • Industrial dyeing practices.
   • Dyeing of blends.

❖ Textile design through dyeing
   • Tie and Dye
- Batik
- Level & Cross dyeing
- Dyeing defects and remedies.
- Advances in dyes & dyeing technology

UNIT – III
- Introduction to printing – difference between dyeing and printing.
- Methods of printing:
  - Historical development of printing methods – block, stencil, screen roller and rotary screens used at cottage and industrial level.
  - Printing pastes – thickening agents and auxiliaries for printing and their suitability to various classes of dyes and fibers. Preparation of printing pastes for different dyes and different fibers.

UNIT – IV
- Styles of Printing
  - Direct style, resist or resource style, discharge style and raised style.
  - Styles and methods of printing traditionally used in India.
- Special Printing Procedures
  - Polychromatic dyeing, transfer printing, carpet printing, flock printing.
- Finishing and after treatment of printed goods at cottage and industrial level.
- Advances in printing technology.

Note for paper setting:

The question paper will consist of two sections

Section I (Weightage = 60 marks): Will consist of 8 long answer questions (2 from each unit with internal choice within the unit). Each question will be of 15 marks. The candidate will be required to answer one question from each unit (total 4 questions).

Section II (Weightage = 20 marks): Will consist of 8 short answer questions (2 from each unit, proportionately spread over the unit). Each question will be of 5 marks. The candidate will be required to answer any 4 questions.

Distribution of Internal marks (20 marks)

Class Test - 10 marks

Two written papers (assignment) – 10 (5 marks each)
REFERENCES:
8. ASTM and ISI Standards.
Second Semester
Detailed Syllabus

Course code: HCT204

Paper: Apparel and Textile Designing

Duration of Examination: 3hrs.
Credits- 04
Max-marks-100
a) Semester Exam: 80
b) Sessional Assessment:20

Teaching Periods: 6/week

Syllabus for the examination to be held in years Dec. 2016, Dec. 2017 and Dec. 2018

OBJECTIVES:
1. To develop skills in apparel &textile design.
2. To develop knowledge about the woven fabric formation, different types of weaves, analyze a fabric.

UNIT – I
- Apparel designing:
  - Definition
  - Tools and equipments used
  - Principles & elements of design
  - Structural and applied designs
  - Use of trimmings and decorative features
- Introduction to leading Indian and foreign dress designers

UNIT – II
- Factors influencing selection of fabric
- Special consideration in designing and layout of the garment for prints, stripes, checks, pile fabric.
- Handling of special fabric while cutting and stitching. (Deep pile, lace, velvet, chiffon, knits, leather)
- Supporting Fabrics: Interlining, Interfacing, Underlining: their functions and application

UNIT – III
- Textile designing:
  - Meaning & importance
  - Different techniques/methods of textile designing
- Elements of Textile Design, Motifs, Styles, Repeats, Layouts, Exploration and Stylization of designs, Construction of designs from incomplete repeats.
Unit : IV
- Construction of elementary weaves- its features and uses, plain, twill, satin.
- Absorbent fabrics- method of construction features, uses of diamond, diaper honeycomb, huck-a- back and mock- leno weaves.
- Dobby designing, introduction, Scope and uses, principle of operation, extra warp and weft designs, method of representation of designs.
- Jacquard designing, Principles of operation, harness and design calculations, size of repeat, counts of design, paper construction and development of designs, prevention of long floats, insertion of weaves, conditions to observe while designing.

Note for paper setting:

The question paper will consist of two sections

Section I (Weightage = 60 marks): Will consist of 8 long answer questions (2 from each unit with internal choice within the unit). Each question will be of 15 marks. The candidate will be required to answer one question from each unit (total 4 questions).

Section II (Weightage = 20 marks): Will consist of 8 short answer questions (2 from each unit, proportionately spread over the unit). Each question will be of 5 marks. The candidate will be required to answer any 4 questions.

Distribution of Internal marks (20 marks)

Class Test - 10 marks

Two written papers(assignment) – 10 (5 marks each)

REFERENCES:
1. Gioello and Berke : Figure Type And Size Range, Fairchild Publications, New York.
Second Semester

Course Code: HCT 205

Paper: Dyeing and Printing Of Textiles (Practical)

Duration of Examination: 3hrs

Credits- 04
Teaching Periods: 9/week

Max-marks-100

a) Semester Exam: 50
b) Sessional Assessment: 50

Preparation of fabric for dyeing and printing:

- Scouring
- Bleaching
- Desizing at cottage level.

- Dyeing of natural and synthetic fabrics with different dyes, shade matching.
- Creating designs on fabrics through various dyeing process
  - Tie & Dye
  - Batik

- Developing designs for block, stencil, screen printing and hand painting. (Sheet work).
- Printing – preparation of screens and stencils for printing.
  - Making samples with stencil, block, screen printings and hand painting on cotton.

- Make one article either of block, stencil, screen and hand painting.
Second Semester

Course Code: HCT206
Paper: Apparel And Textile Designing (Practical)

Duration of Examination: 3hrs

Credits- 04
Teaching Periods: 9/week

Max-marks-100
a) Semester Exam: 50
b) Sessional Assessment: 50

- Geometrical, naturalized, stylized and traditional design development, enlarging, reducing and placement for allover pattern.
- Collection of fabric samples showing different textile designing techniques: printing, dyeing, weaving, fancy yarns, trimmings (sequins, beads etc.), embroidery, combinations (eg. printing + embroidery etc), finishes (glazing, napping, crepe, parchmentising etc.) and preparation of scrap book.
- Market survey of dress trimmings & collection of trimming samples
Course code: HCT301

Paper: Textile Industry in India

Duration of Examination: 3hrs.
Credits- 04
Teaching Periods: 6/week

Max-marks-100
a) Semester Exam: 80
b) Sessional Assessment: 20

Syllabus for the examination to be held in years Dec. 2016, Dec. 2017 and Dec. 2018

Objective:
i) To know India’s growth and development in textile industry.
ii) To analyze the percentage growth rate in textile industry.
iii) To examine the development in Printing and Dyeing Industry.

UNIT-I
- Origin, Growth and Development of Indian Textile Industry, Cotton, Wool, Silk, Rayon, Man-Made Textiles, Readymade garments
- Five year plans for the textile Industry, Recent plan and previous 5 Five year plans, Organizations related to the Textile and clothing Industry Concept of GATT, MFA, WTO, AIC, Globalization.

UNIT-II
- Technological developments in Fiber Industry, Significance and uses
- Technological developments in Yarn Industry, significance and uses.

UNIT-III
- Technological developments in Fabric Industry, woven, significance and uses.
- Technological developments in Fabric Industry, knitting, significance and uses.

UNIT-IV
- Technological developments in Garment Industry, significance and uses.
- Technological developments in Processing Industry, significance and uses. Printing and dyeing industry.

Note for paper setting:
The question paper will consist of two sections

Section I (Weightage = 60 marks): Will consist of 8 long answer questions (2 from each unit with internal choice within the unit). Each question will be of 15 marks. The candidate will be required to answer one question from each unit (total 4 questions).
Section II (Weightage = 20 marks): Will consist of 8 short answer questions (2 from each unit, proportionately spread over the unit). Each question will be of 5 marks. The candidate will be required to answer any 4 questions.

**Distribution of Internal marks (20 marks)**

Class Test - 10 marks

Two written papers (assignment) – 10 (5 marks each)

**REFERENCES :**
3. Normia D'Souza( Fabric Care, , New Age International Pvt Ltd, New Delhi .
4. Ruddar Datt, KPM Sundharam,(2006) Indian Economy P:558, S. Chand & Company Ltd, New Delhi,
Third Semester
Detailed Syllabus

Course code: HCT302

Paper: Fashion Merchandising And Marketing

Duration of Examination: 3hrs.
Credits- 04
Max-marks-100
Teaching Periods: 6/week
a) Semester Exam: 80
b) Sessional Assessment:20

Syllabus for the examination to be held in years Dec. 2016, Dec. 2017 and Dec. 2018

Objectives:
1. To introduce students to aspects of fashion and textile marketing and merchandising
2. To impart knowledge about various product standards and product specifications and the process of product development towards market need.

Unit I
- Merchandising- Definition- Role of a Merchandiser
- Product development – definition – objective - product design and manufacturing - use of merchandising calendar.

Unit II
- Pricing- Specific pricing strategies- New product pricing, demand oriented pricing, cost oriented pricing, value based pricing, competition oriented pricing-Markups and markdowns
- Sourcing- Types of sourcing- factors affecting sourcing decision

Unit III
- Fashion Marketing Research, definition – purpose – types – research design.
- Consumer Behavior in Fashion And Retail Industry – fashion consumer decision making – market segmentation – Target marketing – Fashion marketing mix
- Marketing management – Responsibilities of a marketing manager

Unit IV
- Fashion marketing planning – introduction – planning process and objectives –definition of SWOT analysis– marketing strategy – fashion marketing plan
Note for paper setting:

The question paper will consist of two sections

Section I (Weightage = 60 marks): Will consist of 8 long answer questions (2 from each unit with internal choice within the unit). Each question will be of 15 marks. The candidate will be required to answer one question from each unit (total 4 questions).

Section II (Weightage = 20 marks): Will consist of 8 short answer questions (2 from each unit, proportionately spread over the unit). Each question will be of 5 marks. The candidate will be required to answer any 4 questions.

Distribution of Internal marks (20 marks)

Class Test - 10 marks

Two written papers(assignment) – 10 (5 marks each)

REFERENCES

Third Semester
Detailed Syllabus

Course code: HCT 303

Paper: Technical Textiles

Duration of Examination: 3hrs.

Credits- 04

Max-marks-100

Teaching Periods: 6/week

a) Semester Exam: 80

b) Sessional Assessment: 20

Syllabus for the examination to be held in years Dec. 2016, Dec. 2017 and Dec. 2018

Objectives: To acquaint the students with the techniques of development in nano fiber and micro fibres and study the recent development in the field of technical textiles.

Unit I

- Introduction: Definition & Scope of technical textiles, Application of technical textiles.
- Technical Fibres: Conventional, Natural, Regenerated, Synthetic
- Technical Yarns: Staple yarns and its types, Filament yarns and its types

Unit II

- Technical Fabric Structures
  - Knitted: Weft knitted and warp knitted structures
  - Non Woven: Types of laying, Chemical bonding, Thermal bonding, Solvent bonding, Hydro entanglement
- Finishing of Technical Textiles:
  - Mechanical: Calendering, Raising, Shearing, Shrinkage, Heat Setting
  - Chemical: Flame retardants, Water repellency, Antistatic, Antimicrobial, Antifungal

Unit III

- Geo Textiles: Introduction, Geo synthetics, Types of geo textiles, Geo textile fiber forming polymers. Essential properties: Mechanical properties, Filtration properties, Chemical resistance and uses.
- Nano Technology in Textiles: Classification of nano technology, Nano fibres and new classification, Common Application, Healthcare, Biotechnology and Environmental Engineering applications, Energy generation, defense and security applications as filters

Unit IV

- Medical Textiles: Introduction, Fibers used, Non Implantable materials, Implantable materials, Healthcare/ Hygiene products
Textiles in Defense: Introduction, Physical requirements for military textiles, Environmental requirements, Battlefield hazards, Flame, heat & flash protection.

Textiles in Transport: Introduction, Application in Vehicles, Marine application

Note for paper setting:

The question paper will consist of two sections

Section I (Weightage = 60 marks): Will consist of 8 long answer questions (2 from each unit with internal choice within the unit). Each question will be of 15 marks. The candidate will be required to answer one question from each unit (total 4 questions).

Section II (Weightage = 20 marks): Will consist of 8 short answer questions (2 from each unit, proportionately spread over the unit). Each question will be of 5 marks. The candidate will be required to answer any 4 questions.

Distribution of Internal marks (20 marks)

Class Test - 10 marks

Two written papers(assignment) – 10 (5 marks each)

REFERENCES


• Kettley, S. (2014). Designing with Smart Fibers. Fairchild publishers
Third Semester  
Detailed Syllabus

Course code: HCT 304  
Paper: Fashion Designing
Duration of Examination: 3hrs.
Credits- 04  
Max-marks-100
Teaching Periods: 6/week

a) Semester Exam: 80  
b) Sessional Assessment:20

Syllabus for the examination to be held in years Dec. 2016, Dec. 2017 and Dec. 2018

Objectives:
1. To gain knowledge about fashion sketching.
2. To develop an understanding structural and decorative design.
3. To apply art principle of design in creating dress designing and selecting suitable fabric for particular design

UNIT – I
❖ Features of fashion style, acceptance, change.
❖ Factors affecting fashion, economic factors, sociological factors, psychological factors.
❖ Stages of the fashion, Adoption theories of fashion
❖ Fashion sketching, Introduction, drawing, aspects of drawing, tools, differences between normal and fashion figures.
❖ basic garment shape and accessories.

UNIT-II
❖ Human proportion and figure construction, Methods of determining individual proportions, Heads theory.
❖ Women’s ensembles for pear, diamond, round, hourglass, inverted triangle, straight body types.
❖ Men’s ensembles for short and heavy, short and thin, tall and heavy, tall and thin, athletic body type.

UNIT-III
❖ Design, definition, types - structural and decorative design and their requirements. Elements of design, Principles of Design, Applications of principles and elements of design in dress.
❖ Colour, definition, colour theories, prang colour chart and munsel system. Dimensions of colour, hue value and intensity & colour harmonies, design, principles applied to colour in dress design.

UNIT-IV
❖ Methods of Dress making - home made, tailor made and readymade garments. Merits and Demerits.
❖ Factors affecting selection of clothing - choice of clothing, accessories to express individuality and distinction in appearance. Applications of basic principles in achieving pleasing personality
❖ Dress design- standards for judging costume, Aesthetic requirements for dress suitability to the individuals. Factors in personality, planning a wardrobe. Requirements for health and modesty.
* Planning of dressing, selection of material, texture, pattern, and colour. Suggestion for person who have unusual problems in dress. Trimmings and decorations used in dress. Adjuncts of dress, hats, hair dressing, shoes etc.

**Note for paper setting:**

The question paper will consist of two sections

Section I (Weightage = 60 marks): Will consist of 8 long answer questions (2 from each unit with internal choice within the unit). Each question will be of 15 marks. The candidate will be required to answer one question from each unit (total 4 questions).

Section II (Weightage = 20 marks): Will consist of 8 short answer questions (2 from each unit, proportionately spread over the unit). Each question will be of 5 marks. The candidate will be required to answer any 4 questions.

**Distribution of Internal marks (20 marks)**

Class Test - 10 marks

Two written papers(assignment) – 10 (5 marks each)

**REFERENCES :**

- Mr.Jimsoy and Hariet (2001)"Art and Fashion in clothing solution", Lowa state, University Press, Lowa,
Third Semester

Course Code: HCT 305

Paper: Fashion Designing (practical)

Credits- 04

Max-marks-100

Teaching Periods: 9/week

a) Semester Exam: 50

b) Sessional Assessment: 50

1. Designing and constructing Children’s garment of current trend – any 3 styles.

2. Designing and constructing Women’s garment of current trend – any 3 styles.

3. Organizing a Fashion show
Objective:
1. To enable the students to acquire an in depth understanding of the practical aspects of knowledge and skills through internship in clothing industry/fashion institutes/boutiques/embroidery/dyeing/printing units in the relevant subject/subjects.
2. It further intends to develop their analytical abilities for situation analysis and to devise means and ways for improvement in the existing system.

INTERNERSHIP

- The students shall be required to undergo an internship for a total duration of 4 weeks in their chosen area of interest/specialization that will facilitate their pursuing a professional career in the same field. They will be assigned the project work to be completed during the break after second semester.
- The organization/institute (public/private) providing internship facility to students should stand as good professional career support. It may include clothing industry/fashion institutes/boutiques/embroidery industries/dyeing or printing units etc.
- The students will be required to submit and present a report of the internship project after completion of the same.
- Each student shall be attached with one internal faculty member for providing necessary input for the successful completion of the internship project report.
- The report shall be evaluated out of 150 marks (External-75 marks, Internal-75 marks) as per the following criteria:
  - Student shall give a formal presentation of the report before the jury comprising of minimum three internal faculty members including internal supervisor.
  - The marks will be awarded by the external examiner to be appointed by the examination division of the university.
Course code: HCT 401

Duration of Examination: 3hrs.

Credits- 04

Teaching Periods: 6/week

Paper: Advance Draping

Max-marks-100
a) Semester Exam: 80
b) Sessional Assessment: 20

Syllabus for the examination to be held in years Dec. 2017, Dec. 2018 and Dec. 2019

Objectives:
1. To teach students in detail the principles of draping fabric on the dress form for pattern making.
2. To develop an understanding to design in three dimension with the understanding of design/pattern.
3. To apply art principles of design in creating dreams designing and selecting suitable fabric particular design.

UNIT-I
- Fashion Illustration- Aspect of fashion, good fashion illustration, design research and sources of ideas-films, T.V., painting, historic costume etc.
- Changes and development in fashion.
- Advertising and Sales promotion-Brand standard, labeling, Fashion Show, Exhibition, Display etc.

UNIT –II
- Fashion Drawing- Basic figure drawing basic for men, women and children, anatomy, facial features movements and basic garment shapes. Quick sketching and interpretation of appeared design. Finished drawing.
- Fashion Drawing- Study of shaping devices gathers pleats darts, yokes, pockets cowls, princess line, sleeves collars etc.
- Fashion accessories shoes headgear hand back neck wears, other accessories.

UNIT – III
- Seam allowances marking and tracing. Making basic front and back skirt sleeve bodice block by draping on the dress form.
- Draping on the dress form – dart manipulation, pleats, darts, tucks and gathers. Neckline variation, armhole variation, waistline variation. The princess waist, yokes, basic cowls and variation.
UNIT-IV
  ❖ Skirts Flared, Skirt, Gored skirt, pleated skirt, hip yoke skirt.
  ❖ Draping of collars- mandarin collar, Band collars, convertible collar, peterpan collar, shawl collar.
  ❖ Draping sleeves-basic sleeve, dolman sleeve, raglan sleeve, kimonos sleeve.

Note for paper setting:

The question paper will consist of two sections

Section I (Weightage = 60 marks): Will consist of 8 long answer questions (2 from each unit with internal choice within the unit). Each question will be of 15 marks. The candidate will be required to answer one question from each unit (total 4 questions).

Section II (Weightage = 20 marks): Will consist of 8 short answer questions (2 from each unit, proportionately spread over the unit). Each question will be of 5 marks. The candidate will be required to answer any 4 questions.

Distribution of Internal marks (20 marks)

Class Test - 10 marks

Two written papers(assignment) – 10 (5 marks each)

References
2 Koijiro Kamagai,(1990) Fashion Illustratin:. Expressing Texture
Fourth Semester
Detailed Syllabus

Course code: HCT 402  
Paper: Textile Testing

Duration of Examination: 3hrs.
Credits- 04  
Max-marks-100
a) Semester Exam: 80
b) Sessional Assessment:20

Teaching Periods: 6/week

Syllabus for the examination to be held in years Dec. 2017, Dec. 2018 and Dec. 2019

Objectives:
1 To acquire knowledge of various physical properties of textiles.
2 To develop an understanding of utility of different physical testing equipment.
3 To develop an understanding of the principles involved in different testing method of textiles.

UNIT – I
- Objectives & importance of textile testing. Importance of standards, different types of standards, Introduction to internal bodies such as ISI, ASTM, BIS etc
- Quality control of textile products.
- Quality standards as applicable to various types of textiles (Garments yardage, knits, woven, carpets, processing, dyeing)

UNIT – II
- Fiber Testing: Definition, objectives & method of testing staple length, mean length, short fiber percentage, fineness, evenness, maturity, tensile strength, elongation at break, interpretation of results.

UNIT – III
- Yarn Testing: Definition, Objective and methods of testing count, Denier twist, diameter, crimp, tensile strength, elongation at break, stress strain curve, elastic recovery, yarn appearance & evenness, clothcover, interpretation of results.

UNIT – IV
- Fabric Testing: Definition, objectives & methods of testing length, width, bow & skewness, thread count, ends & picks, weight, thickness, breaking strength, tear strength, bursting strength, abrasion, resistance, stiffness, drapability, pilling, crease recovery, handle, flammability & interpretations of results.
- Thermal properties of textile fibers: - Porosity and air & water permeability of fabrics, thermal conductivity. - Serviceability of fabrics-Service, wear abrasion, method of assessment.
- Garment finishing – color fastness, shrinkage.
**Note for paper setting:**

The question paper will consist of two sections

Section I (Weightage = 60 marks): Will consist of 8 long answer questions (2 from each unit with internal choice within the unit). Each question will be of 15 marks. The candidate will be required to answer one question from each unit (total 4 questions).

Section II (Weightage = 20 marks): Will consist of 8 short answer questions (2 from each unit, proportionately spread over the unit). Each question will be of 5 marks. The candidate will be required to answer any 4 questions.

**Distribution of Internal marks (20 marks)**

Class Test - 10 marks

Two written papers(assignment) – 10 (5 marks each)

**REFERENCES :**

1 J. E. Booth( Principle of Textile Testing – Meanness Butterwroths London.
2 Grower & Hamley – Handbook of Textile Testing and quality control wileg.
Fourth Semester

Course Code: HCT 403

Paper: Textile Testing
(Practical)

Credits- 04

Max-marks-100

Teaching Periods: 9/week

a) Semester Exam: 50
b) Sessional Assessment: 50

I. Yarn Tests
(a) Count (b) Breaking strength (c) twist (d) Crimp
II. Fabric Analysis

(a) Thread count (b) Weight (c) Thickness (d) Abrasion
(e) Strength (Tensile, Tear, Bursting) (f) Crease Recovery
(g) Dimensional changes in laundering (h) Stiffness
III. Color Partners to
(a) Laundering (b) Crocking (c) Pressing Dry and Wet
(d) Perspiration – Acid and Alkaline.
Fourth Semester

Course Code: HCT 404

Paper: Advance Draping
(Practical)

Credits- 04

Max-marks-100
a) Semester Exam: 50
b) Sessional Assessment: 50

Teaching Periods: 9/week

- Sketches with various patterns and styles in garment on basic croques for men, women and children, skirt/ blouse frocks, swim suit, height wear sportswear, summer wear, salwar kameez.
- Creating and constructing new styles in following garment by draping method.

   Skirts (ii) Blouse or Top (iii) Jacket (iv) Evening Dress (v) Salwar Kameez.
Objective:

1. To undertake an independent piece of research work in an issue of contemporary concern that candidate to the advancement of knowledge in the field of clothing and textiles. The student is required to submit a dissertation at the end of the IV th semester.

2. The student will be guided and surprised by a member of the teaching faculty of the department. However, the dissertation in which the research culminates should reflect the students’ own work.