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Item No. _____

UNIVERSITY OF MUMBAI**Syllabus for Approval**

Sr. No.	Heading	Particulars
1	Title of the Course	M. Sc. (Home Science) Branch III: Textiles & Fashion Technology. Semester III and IV
2	Eligibility for Admission	<ul style="list-style-type: none"> • Bachelor of Home Science with Textile & Clothing/Clothing & Textile • Bachelor of Home Science with specialization in Textiles & Fashion Technology • Bachelor of Home Science with specialization in any branch of Home Science • Bachelor of Home Science (General) • Bachelor of Science (Biological Sciences) • Bachelor of Science (Chemistry) • Bachelor of Fashion Design or Bachelor from any Design stream • Learners of any gender are eligible to apply for admission to the course. <p>➤ Bridge course/Tutorials for Bachelors students from non Textile, Clothing & Fashion / Design Background:</p> <ul style="list-style-type: none"> ➤ Basic knowledge of Pattern Making and Garment Construction (syllabus as per TYBSc TFT) ➤ Basic knowledge of Textile Science (Syllabus as per FYBSc, SYBSc and TYBSc) <p>These can be undertaken during the MSc SEM I & II simultaneously</p>
3	Passing Marks	40% (Theory) and (Practical)
4	Ordinances / Regulations (if any)	Eligibility- O.5088 dated 31st August, 2015 Attendance- O. 6086 with effect from 2014-15 and thereafter
5	No. of Years / Semesters	1 years/ 2 Semesters
6	Level	P.G. / U.G./Diploma /Certificate (Strike out which is not applicable)
7	Pattern	Yearly/ Semester (Strike out which is not applicable)
8	Status	New/ Revised (Strike out which is not applicable)
9	To be implemented from Academic Year	From Academic Year <u>2017-18</u>

Date: 10.04.2017

Signature :

Name of BOS Chairperson / Dean : Dr Geeta Ibrahim

UNIVERSITY OF MUMBAI



Essentials Elements of the Syllabus

1	Title of the Course	M. Sc. (Home Science) Branch III: Textiles & Fashion Technology. Semester III and IV
2	Course Code	PSHSIII
3	Preamble / Scope	
	<p>The M.Sc. in Home Science specializing in Textiles and Fashion Technology is designed to impart knowledge and skills that is life oriented, career and community oriented. It has special relevance to Textile, Apparel and Fashion industries with additional knowledge and experience in entrepreneurship skills, field work, rural camp, internship, industrial visits, computer aided designing, marketing and hard skills in Textile and Fashion Technology related areas.</p> <p>Objective of Course / Course Outcome</p>	
4	<ol style="list-style-type: none"> 1. To equip students with the knowledge of basic chemistry and application of of Fibres, Dyes, Finishes and other auxiliaries used in the Textile and Apparel Industry. 2. To impart students a systematic approach to basic and applied aspects of Textiles and Fashion Technology. 3. To familiarize students with the various theoretical and practical aspects of Textile and Apparel quality Assurance. 4. To encourage students to work in conjunction with relevant textile and Apparel industry to get a deeper insight into the subjects of Textiles and Fashion Technology. 5. To provide students with an opportunity to conduct independent research. 6. To equip students to design and produce garments based on needs of the industry and the market. 	

Eligibility

- Bachelor of Home Science with Textile & Clothing/Clothing & Textile
- Bachelor of Home Science with specialization in Textiles & Fashion Technology
- Bachelor of Home Science with specialization in any branch of Home Science
- Bachelor of Home Science (General)
- Bachelor of Science (Biological Sciences)
- Bachelor of Science (Chemistry)
- Bachelor of Fashion Design or Bachelor from any Design stream
- Learners of any gender are eligible to apply for admission to the course.
- Bridge course/Tutorials for Bachelors students from non Textile, Clothing & Fashion / Design Background:
 - Basic knowledge of Pattern Making and Garment Construction (syllabus as per TYBSc TFT)
 - Basic knowledge of Textile Science (Syllabus as per FYBSc & SYBSc)

These can be undertaken during the MSc SEM I & II simultaneously

Fee Structure**M.Sc. (HOME SCIENCE) DEGREE COURSE IN
TEXTILES & FASHION TECHNOLOGY
SEMESTER III and IV****PROPOSED FEE STRUCTURE 2017-18**

No.	*Particulars of fees	Amount
1	Tuition fee	460.00
2	Univ. Share Tuition fee	540.00
3	Form and Prospectus fee	0.00
4	Other fees/ Extra curricular activities	250.00
5	Exam fee	3120.00
6	Laboratory fee	6000.00
7	Library	1000.00
8	Gymkhana	400.00
9	Admission processing fee	0.00
10	V.C. Fund	20.00
11	Magazine	100.00
12	Identity Card	50.00
13	Group insurance	40.00
14	Student Welfare	50.00
15	University Sports and cultural activity	30.00
16	Development fee	500.00
17	Utility	250.00
18	Computer/Laptop	500.00
19	e-suvidha	50.00
20	e-charges	20.00
21	Disaster relief fund	10.00
22	Convocation fee only for M.Sc Part II	250.00
23	National Services Scheme	10.00
24	Field trips/Activities	1000.00
	TOTAL	14650.00

*** FEES ARE DUE TO BE REVISED**

7	No. of Lectures	12 periods per week
8	No. of Practical	11 periods per week
9	Duration of the Course	1 year
10	Notional hours	12 periods per week
11	<p>No. of Students per Batch: 10 - 12</p> <p>Selection- Merit at qualifying T.Y.B.Sc. examination (Semester V and VI) and Entrance Examination</p> <p>Assessment– included in the syllabus copy as Scheme of Examination</p> <p>Syllabus Details – included in the syllabus copy</p> <p>Title of the Unit– included in the syllabus copy</p> <p>Title of the Sub-Unit – included in the syllabus copy</p> <p>Semester wise Theory – included in the syllabus grid</p> <p>Semester wise List of Practical – included in the syllabus grid</p> <p>Question Paper Pattern – included in the syllabus copy as Scheme of Examination</p> <p>Pattern of Practical Exam– included in the syllabus copy as Scheme of Examination</p> <p>Scheme of Evaluation of Project / Internship- – included in the syllabus copy</p> <p>List of Suggested Reading– included in the syllabus copy</p> <p>List of Websites – included in the syllabus copy wherever applicable</p> <p>List of You-Tube Videos –Not Applicable</p> <p>List of MOOCs–Not Applicable</p>	

M.Sc. (Home Science)
Branch III : Textile & Fashion Technology
Semester III

(Revised w.e.f. June 2017)

Course Code	Title	Internal Assessment Mark	Total Marks	Period per week	Credits
PSHSIII301	Global Fashion Scenario	40	100	4	4
PSHSIII302	Management & Administration in the Textiles & Apparel Business	40	100	4	4
PSHSIII303	Garment Production Technology	40	100	4	4
PSHSIIP301	Draping (Knits & Wovens) & Grading	–	50	3	2
PSHSIIP302	World Textile Embroideries and Textile crafts	–	50	3	2
PSHSIIP303	Women's Apparel Design and Production	–	50	4	2
PSHSIIP304	Internship	–	50	–	2
PSHSIIP305	Research Dissertation	50	100	10	4
		160	600	32	24

*The candidate is required to submit the certificate of completing One Year Diploma course in : “CAD, CAM and Computer Technologies in the Apparel Industry – Advanced” before completion of M.Sc. (Home Science) course.

Course Code	Title	Periods/week/Division	Marks	Credits
PSHSIII301	Global Fashion Scenario	4	100	4

Objectives

1. To make aware of the general global fashion scenario.
2. To prepare for the global competition in fashion industry.

Course Content		Periods
Unit I.	Liberalization, Privatization & Globalization & its impact on Indian economy. Development before & after phasing out of Quota system The world fashion scenario- structure of fashion industry and future prospects. Origin of Fashion Fashion Terminology:	11
Unit II.	Fashion Cycle Theories and Principles of Fashion Fashion apparel- women's, men's, children's & teens- category and size ranges. Fashion accessories- categories, market segments and trends in accessory industry. Leather and fur- the leather industry, trends in leather industry, the fur industry.	11
Unit III.	Global designer practices- vendor as designer, private label designer, brand label designer, freelance designer, designer as manufacturer, costume designer, consumer as a designer	11
Unit IV	National & International designers. National & International fashion centers. Fashion Leaders and Followers.	12

REFERENCES:

1. Dorothy S. Lyle & Jeanne Brinkley, Contemporary Clothing, Bennet & Mc Knigh Publishing Company, Peoria, Illinois, 1983
2. Ulla VAd Lane-Rowley, Using design protection in the Fashion & Textile Industry, Jhon Wiley & Sons, Ist Edition 1997
3. Venkatesan. R, &Katti, V.Indian Textile policy for 21st Century, B R Publishing Corporation

Course Code	Title	Periods/week/Division	Marks	Credits
PSHSIII302	Management & Administration in the Textiles & Apparel Business	4	100	4

Objectives

1. To enhance personal and professional performance
2. To make students aware and improve administrative and managerial skills in the textiles industry.
3. To enable students learn to plan an entrepreneurial venture and executing the plan.
4. To assist students develop multi-management skills to either start their own business or manage an existing Textile/Fashion business.

Course Content		Periods
Unit I	<p>Introduction and basic functions of management in Textiles industry</p> <p>Human Resource Development Recruitment and selection, orientation, performance appraisal, training and evaluation, Self-awareness, Leadership and motivation, Conflict management, Stress management, Group dynamics including decision making</p> <p>Marketing and Marketing Management process -Concepts of marketing -Channels of distribution -Market Research and Marketing strategies -Market segmentation, targeting and positioning -Novel and innovative product /service development -Brand development and promotion</p> <p>Office Management of Information Systems in Textile industry Information management- Role, need, and contemporary systems of management. Information Technology- Use of computers in administration and research.</p>	11
Unit II	<p>Finance management in Textile industry Meaning, significance and objectives of finance management. Sources of finance. Working capital management. Tools of finance analysis and planning. Budget formulation and auditing.</p> <p>Funding for the business proposal – Government and non-government opportunities for funds and resources. – Franchising opportunities</p> <p>Product pricing and profit generation</p>	11

	<ul style="list-style-type: none"> - Tools of analysis of costing, cost control and budgeting <p>Accounting procedures and financial statements.</p> <p>Investing resources into the business</p> <p>Corporate Social Responsibility</p>	
Unit III	<p>Entrepreneurship</p> <ul style="list-style-type: none"> -Definition and meaning of entrepreneurship -Types, Classification and trends of Entrepreneurial ventures in sports industries -Qualities and skills of an entrepreneur -Resources required for a business <p>-Project formulation, evaluation and feasibility analysis</p> <ul style="list-style-type: none"> -Idea generation -Market research -Project selection -Project evaluation using appropriate industry standards -Business planning -Importance, purpose and efficiency of a plan -Business acquisition, franchising and outsourcing -Legal, ethical and environmental considerations of the entrepreneurial venture -Overview of business regulation by the government -Inspection, Licensing -Patent, trademark and intellectual property rights registration and accreditations. 	11
Unit IV	<p>Strategic Management in Textile industry</p> <p>Introduction, Evolution of Strategic Management- Conceptual Frame Work – Strategic Management Process- Relevance and Importance of Strategic Management Strategic Decision- Approaches to Strategy to Strategy Formulation</p> <p>Growth Strategies – Generic Business Strategies – Corporate Strategies- Choice of Strategy.</p> <p>Strategy Implementation- Issues in Strategy Implementation – Structural, Behavioral, Functional Implementation – Strategic Evaluation and Control.</p>	12

References:

- Agarwal, T. (2007) Strategic human resource management Oxford University Press – New Delhi.
- Arora, S. P. (1980). *Principles of business economics*. Mumbai: Vipul Prakashan.
- Aswathappa, K. (2005). *Human resource and personal management*.Text and cases.(4th Ed.). New Delhi: Tata McGraw Hill Publishing co. Ltd.
- Aswathappa, K. (2005). Human resource and personnel management – Text and Cases Tata McGraw – Hill Publishing Co. Ltd. New Delhi.

Boyd, H.W., Walker, O.C. and Larreche, J. (1995) Marketing management – A strategic approach with a global orientation 2nd ed. Irwin Chicago.

Cartwright, R., Collins, M., Green, G. and Candy, A. (2001). The handbook for managing resources and information Infinity books, New Delhi.

D'Souza, A. (2001) *Leadership*.(5th Indian print). Mumbai: Better Yourself Books.

Denyer, J. C. (1975). *Office management*.(4th Ed.). London: Macdonald and Evans Ltd.

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Drucker, P. F. (1975). *Management, tasks, responsibilities and practices*. Bombay: Allied Publishers.

Fisher, Cynthia, D. (1997). *Human resource management*. Chennai: All India Publishers.

George T. (1978). *Principles of management*. Illinois: Learning Systems.

Hersey, P. (1998). *Management of organizational behaviour*.(7th Ed.). New Delhi: Prentice- Hall of India Pvt. Ltd.

Ivancevich, J. M. *Management principles and functions*. Delhi: All India Travel Books.

Ivancevich, J.M., Donnelly, J.H. and Gibson, J.L. (1996). Management – principles and functions (4th ed.) All India Traveller Bookseller. Delhi.

Kale, N. G. (2000). *Business management*. Mumbai: Vipul Prakashan.

Kale, N.G. (2003) Principles and practice of marketing. Vipul prakashan – Mumbai.

Kotler, P. (2003) Marketing management 11th ed. Pearson Education (Singapore) Pte. Ltd. Delhi.

Kulkarni, L. G. (1984). *Management is the name of the game*. Bombay: India Book House.

Lockett, J. B. (1987). *The most effective management in your business*. Northamptonshire: Thomsons.

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Naik, S. P. (1993). *Principles of business economics*. Mumbai: Vipul Prakashan.

Northcote, P .C. and Rustomji, M. K. (1986). *Excellence in management*. Bombay: Mirchandani Publishers.

Prasad, L. and Banerjee, A., (1985). *Management of human resources*. New Delhi: Sterling Publishers Pvt. Ltd.

Rao, V. S. P. (2005). *Human resource management: Text and cases*. (2nd Ed.). New Delhi: Excel Books.

Rao, V.S.P. (2005) Human resource management – text and cases (2nd ed.) Excel Books. New Delhi.

Schafer, W. (1998). *Stress management for wellness*. (4th Ed.). Belmont: Wadsworth Thomson Learning.

Sekaran, U. (1998). *Organizational behaviour: Text and Cases*.(7th.Ed.). New Delhi: Tata McGraw Hill Publishing Company. Ltd.

Shookla, M.S. (2004). A handbook of human relations (with structured experiences and instruments). Macmillan India Ltd. Delhi.

Singh, P.N. (1998). Developing and managing human resources (3rd ed.) Suchandra Publications. Mumbai.

Snell, Scott. (2007). *Human resource management*. Australia: Thomson/South-western.

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Wendell, F. (1997) *Human resource management*. Chennai: All India Publishers.

Course Code	Title of the Paper	Periods/week/Division	Marks	Credits
PSHSIII303	Garment Production Technology	4	100	4

Objectives

1. To enhance personal and professional performance in the textile industry.
2. To make students aware of the industrial requirements and working of the textile industry.
3. To impart the knowledge of the industrial sewing machines equipment and plant layouts.

Course Content		Periods
Unit I	Production, management, planning and control line Development Total quality management (TQM) Industrial efficiency Industrial sickness Industry Plant layouts Types followed in Industry with their advantages & disadvantages	11
Unit II	Drafts layouts, layering, consumption and cutting Industrial sewing machines, needles, irons and other equipments.	11
Unit III	Formats and worksheets used in various departments. Cost Sheets,	11
Unit IV	Computer technology in garment manufacture	12

References

- Batty, J. (1975). *Industrial administration and management*. (3rd Ed.) London: The English language book society and McDonald and Svans.
- Claire, B. (1981). *The complete book of sewing shortcuts*. New York: Sterling publisher
- Dani, L. M. (1990). *Industrial organization and management*. Bombay: Manan publisher
- Kallal, M. (1985). *Clothing construction*. London: Macmillan Publishing Co. Inc.
- Kale, N. G. (1997). *Management and human resource development*. (6th Ed.) Mumbai: Manisha.
- Michael, V. and Paralkar, V. (1997). *The editors of times-life books*, Netherlands: Time-life B. V. International.
- Mehta Pradir V. (1992) *An introduction to quality control for the apparel industry*. ASQC. Quality Press, Marcel Dekker, Inc. Milwackee, New York, Dassel, Hongkong.

Course Code	Title	Periods/week/Batch	Marks	Credits
PSHSIIP301	Draping (Knits & Woven) & Grading	3	50	2

Objectives

1. To acquaint students with the techniques of draping for woven and knitted fabrics.
2. To design and construct garments using the principles of draping.

Course Content		Periods
Unit I	a) Basic bodice, torso, dart-less sloper. b) Basics lower block. c) Displacement and concealment of darts.	11
Unit II	Draping of Six patterns including different collars, sleeves and concealments using woven and knitted fabrics.	11
Unit III	Draping & Stitching - Theme Garment (1 Garment) Speed Test (1 Garment)	11
Unit IV	Grading	12

*Journal Portfolio Presentation

References

- Armstrong, H .J. (2000). *Draping for apparel design*. New York: Fairchild publications.
- Cloake, D. (1976) *Fashion design on the stand*. Batsford publication.
- Crawford, Connice, A. (1989) *The art of fashion draping*. Fairchild's Publication.
- Goulbourn, M. (1971) *Introducing pattern cutting, grading and modeling*. Batsford publication
- Mee, J. & Prudy, M. (1987) *Modelling on the stand*. Oxford: BPS Professional Books.
- Silberg, L., & Shoben, M. (1992) *The art of dress modeling*. Oxford: Butterworth Heinmann publication.
- Stanley, H. (1983) *Modeling and flat cutting for fashion*. Hutchison Education publication.

Course Code	Title	Periods/week/Batch	Marks	Credits
PSHSIIP302	World Textile Embroideries and Textile crafts	3	50	2

Objectives

1. To introduce students to the various textile designing concepts through weaving, printing and embroidery for different end uses.
2. To enhance the creativity of students in designing.

Course Content		Periods
Unit I	Woven, printed, and embroidered textile designing for various end uses like apparel, accessories and home furnishings, using various repeat units & layouts-manual work	11
Unit II	Western embroidery Bargello, Norwich	11
Unit III	Ribbon embroidery, Bead work	11
Unit IV	Cutwork, Mount mellick	12

*Journal/Portfolio Presentation

References:

- Beginner's guide to silk ribbon embroidery* (1998). (1st Ed.). Kent: Search Press Ltd.
- Cable, S. (1997). *Silk ribbon embroidery*. (1st Ed.). N.Y. The reader's digest association,
- Drawn thread embroidery*, (1977) Anchor Embroidery Book No.650 Coats Sewing Group, Glasgow.
- Elders, K. (1998) *Embroidery Projects Techniques: motifs*, Quadrilla London: Publishing Ltd.
- Embroidery and cross stitch* (1983) for framing, Tokyo: Ondarisha publisher.
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- Griffiths, A. (1989). *An introduction to embroidery*, London: Apple Press.
- Mellick&Trott.(2002). *Beginner's guide mount embroidery*. Kent: Search Press Ltd.
- Norden,Mary (1997), *Decorative embroidery*, New York: The Reader's Digest Association Inc.
- Ondari, *Embroidery*, Book 2 Japan: Olympus family club
- Pauline,B. *Encyclopedia of embroidery techniques* by, Kent: Search Press Ltd.
- Seaman, J. (1996). *Fashion illustration - Basic techniques*. B. T. Batsford.
- Shenai, V. A. (1977). *History of textile design*. Bombay: Sevak.
- Snook, B., (1972). *The creative art of embroidery*, Hamlyn: Publishing Grp. Ltd. London.

Course Code	Title	Periods/week/Batch	Marks	Credits
PSHSIIP303	Women's Apparel Design and Production (Knits)	4	50	2

Objectives:

1. To Familiarize students with special techniques of apparel making with knitted fabrics
2. To acquaint students with the art of handling different knitted fabrics and styles
3. To acquaint students with the techniques and skills of pattern making and stitching

References

Ajgaonkar, D. B. (1998). *Knitting technology*. Mumbai: Mumbai Universal.

Aldrich, W. (1994). *CAD in clothing and textiles*. (2nd Ed.) Oxford, Blackwell, Science.

Course Content		Periods
Unit I	Pattern Drafting <ul style="list-style-type: none"> • Introduction to the different types of fabrics: viz. warp and weft knits. Calculations for Knits. • Child and adults basic block, dartless sloper and sleeves. • Displacements and concealments of darts. 	15
Unit II	Theme based designing, flat pattern construction and stitching of knitted garments. (Total 1 garment) <ul style="list-style-type: none"> • T-shirt/Top Following concepts and fundamentals may be included in garments or as samples. <ul style="list-style-type: none"> • Concealments • Sleeves • Collars & Necklines • Pockets & Zip attachments (Invisible and with seam). • Plackets 	15
Unit III	Theme based designing, flat pattern construction and stitching of knitted garments. (Total 1 garments) <ul style="list-style-type: none"> • Lingerie Following concepts and fundamentals to be included in garments or as samples. <ul style="list-style-type: none"> • Concealments • Sleeves • Collars & Necklines • Pockets & Zip attachments (Invisible and with seam). • Plackets 	15
Unit IV	Themed Garment (1) Speed Test Garments (2)	15

Armstrong, H. (1986). *Pattern making for fashion designing*. New York: Harper Collins.

Armstrong, H. (1987). *Pattern making for fashion designing*. New York: Harper & Row.

- Armstrong, H. J. (2000). *Draping for apparel design*. New York: Fairchild.
- Bradley, G. (1954). *Costume design*. (3rd Ed.) Searnton: International Textbook.
- Carr, H. (1994). *The technology of clothing manufacture*. (2nd Ed.) Oxford: Blackwell Scientific.
- Dunn, L. (1970). *Steps in clothing skills*. Illinois: Chas A. Bennett.
- Goulbourn, M. (1971). *Introducing pattern cutting, grading and modeling*. London: B. T. Batsford.
- Graff, J. L. (1976). *Concepts in clothing*. New York: McGraw Hill.
- Kaiser, S. B. (1985). *The social psychology of clothing*. New York: Macmillan.
- Kefgen, M. (1986). *Individuality in clothing selection and appearance*. (4th Ed.) New York: Macmillan.
- Liddell, L. A. (1981). *Clothes and your appearance*. Illinois: The Goodheart Will Cox.
- Minott, J. (1978). *Fitting commercial patterns*. Minneapolis: Minnesota Burgess.
- Spencer D. (1989). *Knitting technology* (2nd Ed.) Cambridge: Woodhead.
- Stanley, H. (1977). *Modeling and flat cutting for fashion*. London: Hutchison.
- Turnpenny, J. M. (1983). *Fashion design and illustration 11. Knitwear and jersey*. London: Century Hutchison.

Course Code	Title	Duration	Marks	Credits
PSHSIIP304	Internship	40 hours /week for 5 weeks	50	2

Internship Protocol

-Students are required to take up an internship/hands-on training for a minimum of 5 weeks with 40 hours per week after Semester-II examinations (during summer break) on either of the following textile/ fashion apparel related industries.

- Government/ Private Textile Testing and Research Laboratories
- GO/NGO for Textile related activities
- Textile Industry - Export or Domestic
- Fashion Industry- Export or Domestic- Boutique or Fashion houses
- Apparel Industry- Export or Domestic
- Fashion Photography/ Fashion Journalism
- Retail Industry
- Textile Craft centers
- Any other related Industries

- At the end of internship students are required to submit a soft copy and hard-bound report to the college and have to make a presentation.

-Internship will be graded by the supervisor at the place of internship on completion of the internship.

- Alternatively, students can also take up an entrepreneurial activity of equal weightage as per the discretion of the department (Subject to approval of the Department Head).

Course Code	Title	Periods/week/Batch	Marks	Credits
PSHSIIP305	Research Dissertation	10	100	4

Objectives

1. To provide students with an opportunity to conduct independent research in their specialization under supervision.
2. To encourage students to work in conjunction with relevant industries, institutes, hospitals, schools, etc.
3. To assist students in developing general research skills as well as research skills specific to their Specialization.
4. To encourage students to adopt best practices in research.
5. To facilitate students in accomplishing the beginning steps of the research process, formulate and defend a research proposal, begin data collection, and write the first two chapters of the dissertation (Introduction and Review of Literature; Method).

Course Content		Periods
Unit I	Beginning Steps of the Research Process: I <ul style="list-style-type: none"> • Contacting and communicating with experts (locally, nationally, and internationally) • initially and periodically throughout the research process; reading relevant literature(e.g., scientific journals, dissertations, theses, books, literature on the Net); • Selecting appropriate topics in one’s specialization; prioritizing these topics; checking topics for feasibility. 	36
UNIT II	Beginning Steps of the Research Process: II <ul style="list-style-type: none"> • Identifying possible focus areas with regard to one topic; specifying one such focus area(using relevant reading and communication with experts); • writing research objectives/questions/ hypotheses; conducting a thorough literature review; presenting a clear and convincing argument in support of the study; writing the first chapter of the dissertation, namely, the <i>Introduction and Review of Literature</i>, with due acknowledgement of source of ideas. 	36
Unit III	Proposing Methods <ul style="list-style-type: none"> • Specifying variables; defining variables (citing relevant literature); selecting an appropriate research design; making decisions related to sampling; selecting and/or constructing tools, pilot-testing tools; making a plan of analysis; writing the second chapter of the dissertation, namely, the <i>Method</i>, with due acknowledgement of source of ideas; orally defending a research proposal; integrating feedback. 	36
UNIT IV	Beginning Data Collection: <ul style="list-style-type: none"> • Obtaining consent from participants and relevant agencies/authorities; starting data collection; integrating changes if any; scheduling remaining 	36

	data collection; starting data entry; revising the first two chapters of the Dissertation.	
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References:

- Bhattacharyya, G.K. & Johnson, R. A. (1977). *Statistical concepts and methods*. NY: John Wiley.
- Dwiwedi, R. S. (1997). *Research methods in behavioral sciences*. Delhi: Macmillan India.
- Gravetter, F. J. & Wailnau, L. B. (2000). *Statistics for the behavioral sciences*. Belmont, CA: Wadsworth/Thomson Learning.
- Kerlinger, F. N. & Lee, H. B. (2000). *Foundations of behavioral research*. Orlando, Florida: Harcourt.
- Leong, F.T.L. & Austin, J. T. (Eds.) (1996). *The psychology research handbook*. New Delhi: Sage

M.Sc. (Home Science)						
Branch III : Textile & Fashion Technology						
Semester IV						
(Revised w.e.f. June 2017 onwards)						
Course Code	Title	Internal Assessment Marks	Sem end Examinations	Total Marks	Period / week/ Division/Batch	Credits
PSHSIII401	Trend Research Forecasting	40	60	100	4	4
PSHSIII402	Media & Communication for Textile & Fashion	40	60	100	4	4
PSHSIII403	Intellectual Property Rights for Textiles & Garments	40	60	100	4	4
PSHSIIP401	Sustainable & Ethical Design Development for Textiles & Apparel	–	50	50	3	2

PSHSIIP40 2	Costume Designing, Styling and Promotion for Media- Cinema, Serials, Stage	–	50	50	3	2
PSHSIIP40 3	Men's Apparel Design and Production	–	50	50	4	2
PSHSIIP40 4	Alternative Health Strategies and Therapies	–	50	50	–	2
PSHSIIP40 5	Research Dissertation	50	50	100	10	4
		170	430	600	31	24

*The candidate is required to submit the certificate of completing One Year Diploma course in: “CAD, CAM and Computer Technologies in the Apparel Industry - Advanced” before completion of M.Sc. (Home Science) course.

Course Code	Title	Periods/week/Division	Marks	Credits
PSHSIII401	Trend Research Forecasting	4	100	4

Objectives:

1. Understand fashion phenomena with fashion theories and frameworks.
2. Develop a holistic understanding of fashion, trends, and forecasting in a global setting.
3. Increase your abilities in applying principles and concepts to specific situations, building analytical skills, and gaining experience in problem solving.
4. Apply to real-life business market or professional practices for each of the forecasting disciplines
5. Effectively communicate your understanding of fashion trends in both visual and written form.

Course Content		Periods
Unit I	Overview of trend forecasting tools Macro and micro trend evaluation, The fashion pyramid , Fashion cycle and process Fashion Forecasting Process Diffusion of Innovation, Cultural Indicators.	11
Unit II	Types of forecast Color Forecasting Textile Forecasting Styling Forecasting Sales Forecasting Accessories forecasting Fabric forecasting	11
Unit III	Influence of trend and culture Contemporary Culture Street Influence Celebrity Culture The new gatekeepers of fashion Range building with trends Trend prediction for a customer base Fabric Fairs Consumer Research	11

Unit IV	<p>Analyze trends and trend cycles to predict future trends Associate historical costume with past and current trends Perform market research for the development of trend analysis Defend trend predictions</p> <p>Demonstrate knowledge of current designers and brands Research current designers and brands Develop a personal strategy for staying informed about the apparel industry</p> <p>Translate research into viable designs</p> <p>Identify the target market and assess customer needs</p> <ul style="list-style-type: none"> • Research the target market for a design solution • Define the psychographics and demographics of the target customer <p>Communicate creative concepts effectively</p> <ul style="list-style-type: none"> • Communicate visually through roughs, boards, and illustrations • Communicate using industry standard terminology • Utilize industry standard software to communicate a design solution <p>Utilize the research process to recognize past and present influences and forecast future influences</p> <ul style="list-style-type: none"> • Identify historical periods of clothing and describe their impact on society • Recognize current designers' impact on the marketplace • Apply past and present influences to extrapolate trends <p>Analyze and synthesize data, and draw conclusions</p> <ul style="list-style-type: none"> • Demonstrate creative thought process • Compose data to support analysis • Present data to draw conclusion 	12
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References:

Brannon, E. L. (2005). Fashion Forecasting (3rd ed.). New York: Fairchild Publications.
Regan, C. L. (2008). Apparel Product Design & Merchandising Strategies. Upper Saddle River, New Jersey: Pearson Prentice Hall.
Hethorn, J., &Ulasewicz, C. (2008). Sustainable Fashion: Why Now? New York: Fairchild Publications.

Course Code	Title	Periods/week/Division	Marks	Credits
PSHSIII402	Media & Communication for Textile & Fashion	4	100	4

Objectives:

1. To acquaint students to various methods used in media and communication of Textiles and Fashion.
2. To make them aware of the scope and challenges of each

Course Content		Periods
Unit I	a) Historical background , concept, nature, scope and functions of Communication. b) Elements of Communication and their characteristics c) Principles of Communication	11
Unit II	Types of Communication	11
Unit III	Introduction to: a) Fashion Journalism b) Fashion Photography c) Fashion Videography	11
UNIT IV	History and role of: <ul style="list-style-type: none"> • Films • Theatres • Serials • Advertisements 	12

References

- Barker, L. (1978). "Communication", New Jersey: Prentice Hall, Inc; 171.
- Devito, J. (1998) Human Communication. New York: Harper & Row.
- Gandhi, R.S. Mehta, Talele, A.B. (1992) *De-centralized sector of the Indian textile industry*. NICTAS Publication
- Sengupta, S. (1990) *Brand positioning strategies for competitive advantage*. Tata McGraw

Course Code	Title	Periods/week/Division	Marks	Credits
PSHSIII403	Intellectual Property Rights for Textiles & Garments	4	100	4

Objectives:

1. To make students aware about the different Intellectual Property Rights for Textiles and Garments.
2. To make students aware about the patents, copyright, trademarks, geographical indication, industrial designs, unfair competition enforcement of Intellectual, property rights and intellectual property.
3. To make the students aware about the importance of the above topics in the textile and fashion industry.

Course Content		
Unit I	<ul style="list-style-type: none"> • OVERVIEW OF INTELLECTUAL PROPERTY Introduction and the need for intellectual property right (IPR) IPR in India – Genesis and Development IPR in abroad Some important examples of IPR • PATENTS Macro-economic impact of the patent system Patent and kind of inventions protected by a patent Patent document How to protect your inventions? Granting of patent Rights of a patent How extensive is patent protection? Why protect inventions by patents? Searching a patent Drafting of a patent Filing of a patent The different layers of the international patent system (national, regional and international options) Utility models Differences between a utility model and a patent? Trade secrets and know-how agreements. 	11
Unit II	<ul style="list-style-type: none"> • COPYRIGHT What is copyright? What is covered by copyright? How long does copyright last? Why protect copyright? RELATED RIGHTS What are related rights? Distinction between related rights and copyright? Rights covered by copyright. • TRADEMARKS What is a trademark? Rights of trademark? 	11

	<p>What kind of signs can be used as trademarks? types of trademark function does a trademark perform How is a trademark protected? How is a trademark registered? How long is a registered trademark protected for? How extensive is trademark protection? What are well-known marks and how are they protected? Domain name and how does it relate to trademarks?</p>	
Unit III	<ul style="list-style-type: none"> • GEOGRAPHICAL INDICATIONS What is a geographical indication? How is a geographical indication protected? Why protect geographical indications? • INDUSTRIAL DESIGNS What is an industrial design? How can industrial designs be protected? What kind of protection is provided by industrial designs? How long does the protection last? Why protect industrial designs? 	11
Unit IV	<ul style="list-style-type: none"> • UNFAIR COMPETITION What is unfair competition? relationship between unfair competition and intellectual Property laws? • ENFORCEMENT OF INTELLECTUAL PROPERTY RIGHTS Infringement of intellectual property rights Enforcement Measures • INTELLECTUAL PROPERTY Overview of Biotechnology and Intellectual Property Biotechnology Research and Intellectual Property Rights Management Licensing and Enforcing Intellectual Property Commercializing Biotechnology Invention Case studies of Biotechnology 	12

References:

P.N. Cheremisinoff, R.P. Ouellette and R.M. Bartholomew, Biotechnology Applications and Research, Technomic Publishing Co., Inc. USA, 1985

D. Balasubramaniam, C.F.A. Bryce, K. Dharmalingam, J. Green and K. Jayaraman, Concepts in Biotechnology, University Press (Orient Longman Ltd.), 2002

Bourgagaize, Jewell and Buiser, Biotechnology: Demystifying the Concepts, Wesley Longman, USA, 2000.

Ajit Parulekar and Sarita D' Souza, Indian Patents Law – Legal & Business Implications; Macmillan India Ltd , 2006

B.L. Wadehra; Law Relating to Patents, Trade Marks, Copyright, Designs & Geographical Indications; Universal law Publishing Pvt. Ltd., India 2000

P. Narayanan; Law of Copyright and Industrial Designs; Eastern law House, Delhi ,2010.

Course Code	Title	Periods/week/Batch	Marks	Credits
PSHSIII401	Sustainable & Ethical Design Development for Textiles & Apparel	3	50	2

Objectives

1. To help student develop sustainable products
2. To make students aware of the importance of sustainable and ethical designs in textiles & Apparel.

Course Content		Periods
Unit I.	Review of literature on sustainable products	11
Unit II	Make 1 sustainable product – Apparel	11
Unit III	Make 1 sustainable product – Home Furnishing.	11
Unit IV	Make 1 sustainable product – Accessories	12

References:

SafiaMinney (author), Lucy siegle (foreword), Livia Firth (foreword), Naked fashion: the new sustainable fashion revolution, published by: New international publication limited (2011).

Kate Fletcher, Lynda Grose, Fashion and sustainability: design for change, Published by: Laurence king publishing ltd. (2012).

Kate Fletcher, Sustainable Fashion and Textiles: Design Journeys, Published by: Routledge (2014)

Course Code	Title	Periods/week/Batch	Marks	Credits
PSHSIIP402	Costume Designing, Styling and Promotion for Media- Cinema, Serials, Stage	3	50	2

Objectives:

1. To introduce the discipline of costume design, including character/script analysis, research, rendering, and production values.

2. To become familiar with the fundamentals of costume design for TV/Film. They will gain insight into the protocol and expectations required to succeed in this fast paced industry.
3. To touch on the multiple variations of production formats: Music Video, Tv: 4 camera VS episodic, Film, Commercials, Styling VS Costume Design.

Course Content		Periods
Unit I	<ul style="list-style-type: none"> • Create a plan for a character (TV Serial) incorporating costume design, style, image and identity using visual and written presentation. [Names of everything each wears and describing the shape (cut) and decoration of garments and accessories.] • Use design elements to design costumes and ways to style it, which reflect characterization. • Lay out a well arranged costume plate with styling. (Draw these on well-proportioned male and female figures) 	11
Unit II	<ul style="list-style-type: none"> • Create a plan for a character (Movie) incorporating costume design, style, image and identity using visual and written presentation. [Names of everything each wears and describing the shape (cut) and decoration of garments and accessories.] • Use design elements to design costumes and ways to style it, which reflect characterization. • Lay out a well arranged costume plate with styling. (Draw these on well-proportioned male and female figures) 	11
Unit III	<ul style="list-style-type: none"> • Create a plan for a character (Stage Play/Drama) incorporating costume design, style, image and identity using visual and written presentation. [Names of everything each wears and describing the shape (cut) and decoration of garments and accessories.] • Use design elements to design costumes and ways to style it, which reflect characterization. • Lay out a well arranged costume plate with styling. (Draw these on well-proportioned male and female figures) 	11
Unit IV	<ul style="list-style-type: none"> • Use different combinations of promotional activities to promote your costumes [Print Ad/ Video Ad/VM/Ramp Show/Catalogue] 	12

References

- Swanson, K., and Everett, Judith (2007). Promotion in the Merchandising Environment. (2nd). New York; Fairchild Publications.
- Rosemary Ingham, Costume Designer's Handbook: A Complete Guide for Amateur and Professional Costume Designers, (2nded), Prentice Hall Inc. (1983)
- Deborah Nadoolman Landis, Costume Design, Focal Press (2012)
- Kate Spade, Ruth A., Peltason, Style, Simon & Schuster (2004)

Course Code	Title	Periods/week/Batch	Marks	Credits
PSHSIIP403	Men's Apparel Design and Production	4	50	2

Objectives:

1. To teach students how to read elaborate styles and patterns in men's wear.
2. To equip students with the techniques of advanced pattern designing through flat pattern construction in men's wear.
3. To acquaint students with the techniques and skills of garment construction through flat pattern.
4. To make students competent to stitch garments with elaborate patterns in men's wear.

Course Content		Periods
Unit I	Basic Blocks: Adults bodice block and lower block for men	11
Unit II	Upperwear: <ul style="list-style-type: none"> • One Indian Wear [Kurta] 	11
Unit III	Lowerwear: <ul style="list-style-type: none"> • One Indian Wear [Churidar] 	11
Unit IV	Jacket (one) <ul style="list-style-type: none"> • Indian/Western 	12

References:

- Pattern Making for Fashion design by Armstrong, Vikas Publishing House Pvt.Ltd. Delhi.
- Armstrong, H (2014) Ed. 5th, *Pattern Making for Fashion Design*. Delhi India: Dorling Kindersley Private Limited,
- Tailoring: The Classic Guide to Sewing the Perfect Jacket, Creative Publishing int'l (2011)
- McCall`s. (1964). *Sewing in Colour*. London: The Hamlyn Publishing Group Ltd.
- Reader's Digest, (1993). *Step by Step Guide: Sewing and Knitting*, Auckland: Reader's Digest.

Course Code	Title	Periods/week/Batch	Marks	Credits
PSHSPIII404	Alternative Health Strategies and Therapies	2	50	2

Objectives

1. To have students learn about alternative health strategies and therapies through engagement in participatory workshops.

Units	Contents	Periods
Unit I	Organising and participating in workshops that teach Eastern alternative health strategies and therapies such as the following: <ul style="list-style-type: none"> • Yoga • Mindfulness and meditation • Ayurveda • Energy healing • Laughter therapy • Acupuncture / acupressure • Any other 	15
Unit II	Organising and participating in workshops that teach Western alternative health strategies and therapies such as the following: <ul style="list-style-type: none"> • Music therapy • Dance therapy • Art-based therapy • Nature therapy • Hypnotherapy • NLP • Any other 	15

- At the end of term, students are required to submit a soft copy and hard-bound report to the college which will be graded and a viva-voce will also be conducted
- Note: Common paper with the Department of Foods Nutrition and Dietetics and Human Development.

Course Code	Title	Periods/week/Batch	Marks	Credits
PSHSIIP405	Research Dissertation	10	100	4

Objectives:

1. To provide students with an opportunity to conduct independent research in their specialization (i.e., Foods, Nutrition and Dietetics; Human Development; and, Textile and Fashion Technology) under supervision.
2. To encourage students to work in conjunction with relevant industries, institutes, hospitals, schools, etc.
3. To assist students in developing general research skills as well as research skills specific to their specialization.
4. To encourage students to adopt best practices in research.
5. To facilitate students in completing data collection/data entry/data analysis, and writing the remaining three chapters of the dissertation (Results, Discussion, Summary).
6. To support students to complete and submit the dissertation for the viva voce examination, integrate
7. feedback, submit the final copy of the dissertation, and write a research paper using the findings of their research.

Course Content		Periods
Unit I	A. Completing Data Collection B. Completing Data Entry and Preliminary Analyses Entering all data; checking for data entry errors; running preliminary analyses.	36
Unit II	C. Analyzing Data and Reporting Results Analyzing data; interpreting findings; reporting results in figures/tables and text using scientific protocol; writing the third chapter of the dissertation, namely, the <i>Results</i> , by research objectives/ questions/hypotheses; orally presenting the results and integrating feedback.	36
Unit III	A. Discussing Findings Corroborating own findings with those in previous research and theory; explaining findings using relevant literature and communication with experts; discussing implications of findings for practice/ industry/family/society; suggesting recommendations for future research; writing the fourth chapter of the dissertation, namely, the <i>Discussion</i> , using appropriate scientific protocol B. Summarizing Findings and Completing the Writing of the Dissertation Writing the fifth chapter of the dissertation, namely, the <i>Summary</i> ; writing the abstract; revising previous chapters as necessary; completing all other relevant work for the dissertation (e.g., reference list, appendices, table of contents, and list of figures/tables); submitting the dissertation for the viva voce examination.	36

Unit IV	C. Submission and Oral Defense; Writing of the Research Paper Orally defending the dissertation; integrating feedback into the final document; submitting the completed dissertation (hard copy and soft copy). Using the dissertation to write a research paper; submitting the research paper (hard copy and softcopy) Using the dissertation to write a research paper; submitting the research paper (hard copy and soft copy)/ Present the findings at Avishkar/Indian Science Congress or any other Conference	36
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References:

Bhattacharyya, G.K. & Johnson, R. A. (1977). *Statistical concepts and methods*. NY: John Wiley.

Dwiwedi, R. S. (1997). *Research methods in behavioral sciences*. Delhi: Macmillan India.

Gravetter, F. J. & Wailnau, L. B. (2000). *Statistics for the behavioral sciences*. Belmont, CA: Wadsworth/Thomson Learning.

Kerlinger, F. N. & Lee, H. B. (2000). *Foundations of behavioral research*. Orlando, Florida: Harcourt.

Leong, F.T.L. & Austin, J. T. (Eds.) (1996). *The psychology research handbook*. New Delhi: Sage.

Examination Scheme for MSc Home Science:

Part A: Theory Papers

All theory papers of 100 marks are to be evaluated in two parts.

INTERNALS: 40 marks. This comprises 30 marks for a project, 5 marks for class participation, and 5 marks for the extent to which the student was a responsible learner. See Table below:

<ul style="list-style-type: none"> • One seminar presentation based on the curriculum in the college, assessed by the teacher of the institution teaching PG learners / Publication of a research paper/ Presentation of a research paper in seminar or conference. <ul style="list-style-type: none"> A. Selection of the topic, introduction, write up, references- 15 marks. B. Presentation with the use of ICT- 15 marks. • Other exercises of equal weightage can also constitute the project: 	30 Marks
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For example, conducting interviews or assessments based on the topics in the curriculum; or reflective writing exercises on topics relevant to the curriculum; or product designing.	
<ul style="list-style-type: none"> Active participation in routine class instructional deliveries 	05 Marks
<ul style="list-style-type: none"> Overall conduct as a responsible learner, communication and leadership qualities in organizing related academic activities 	05 Marks

SEMESTER-END EXAMINATION: 60 marks. The semester-end question paper is for 2 ½ hours. The semester-end examination question paper has to be set with limited choice within each set of questions.

For all four unit syllabi, the question paper must have five sets of questions of 12 marks each; each of the five questions is compulsory, with options within each question:

- Question 1, carrying 12 marks, has a set of sub-questions from Unit I.
- Question 2, carrying 12 marks, has a set of sub-questions from Unit II.
- Question 3, carrying 12 marks, has a set of sub-questions from Unit III.
- Question 4, carrying 12 marks, has a set of sub-questions from Unit IV.
- Question 5, carrying 12 marks, has a set of sub-questions from Units I, II, III, and IV.
- Possible sub-questions for Questions 1, 2, 3, 4 and 5 include the following formats:
Answer any 2 sub-questions out of 3, or any 3 out of 5, or any 4 out of 6. (Format may be modified for a lengthier statistics sum.)

	Total Marks/ Duration	Internal Assessment	Semester End Exams	Pattern
Theory Papers	100 marks/ 2 and ½ hours	40	60	Q 1.(12 marks)- Unit 1 Q 2.(12 marks)- Unit 2 Q 3.(12 marks)- Unit 3 Q 4.(12 marks)- Unit 4 Q 5.(12 marks)- Units 1, 2, 3, 4, & 5

For all three unit syllabi, the question paper must have four sets of questions of 15 marks each; each of the four questions is compulsory, with options within each question:

- Question 1, carrying 15 marks, has a set of sub-questions from Unit I.
- Question 2, carrying 15 marks, has a set of sub-questions from Unit II.

- Question 3, carrying 15 marks, has a set of sub-questions from Unit III.
- Question 4, carrying 15 marks, has a set of sub-questions from Units I, II, & III.
- Possible sub-questions include the following formats: Answer any 2 sub-questions out of 3, or any 3 out of 5, or any 5 out of 8. (Format may be modified for a lengthier statistics sum.)

	Total Marks/ Duration	Internal Assessment	Semester End Exams	Pattern
Theory Papers	100 marks/ 2 ½ hours	40	60	Q 1.(15 marks)- Unit 1 Q 2.(15 marks)- Unit 2 Q 3.(15 marks)- Unit 3 Q 4.(15 marks)- Units 1, 2 and 3

Part B: Practical Papers

Each Practical Paper of 50 marks will be evaluated in a semester-end examination of 50 marks. There are no internal marks for these practical papers. The semester-end examination is of 3 1/2 hours.

	Total Marks/ Duration	Internal Assessment	Semester-End Exams	Pattern
Practical Paper	50 marks/ 3 ½ hours	-	50	-

Dissertation carries 100 marks in each of Semesters III and IV. Of these 100 marks, 50 marks are to be scored by the guide (25 marks for process & 25 marks for the product), and 50 marks by the referee(s) on the day of the viva-voce examination (25 marks for the written product & 25 marks for the viva).