Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore
Shri Vaishnav Institute of Technology and Science
Choice Based Credit System (CBCS)
M. Tech. in Textile Engineering
(2021-2023)

COURSE CODE	CATEGORY	COURSE NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		L	T	P	CREDITS
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
MBAI301C	AECC	Advanced Human Values and Professional Ethics	60	20	20	0	0	3	0	0	3

Legends: **L** - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** – Practical;   **C** - Credit;
***Teacher Assessment** shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

To download detailed syllabus of this

Subject visit web link

of

Shri Vaishnav School of Management

at

SVVV website.

Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore
Shri Vaishnav Institute of Technology
M. Tech. (Textile Engineering) SEMESTER I

COURSE CODE	Category	COURSE NAME	TEACHING & EVALUATION SCHEME					Th	T	P	CREDITS
			THEORY			PRACTICAL					
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
MTMATX101	BS	Advanced Mathematics	60	20	20	-	-	3	1	0	4

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Course Educational Objectives (CEOs):

To introduce the students with the Fundamentals of the Advanced Mathematics.

Course Outcomes (COs):

After the successful completion of this course students will be able to:
A. apply the concepts of vector spaces, subspaces, bases, dimension, and their properties
B. understand and find solution/numerical solution of the PDE.
C. know the fundamental principles of the probability distributions.
D. analyze consequences of Random or Stochastic processes.
E. recognize the problems of the fuzzy set and connect to real world problems.
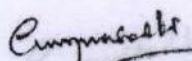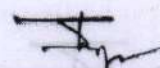
Syllabus

Unit I
Linear Algebra: Vector space, Sub space, Basis & dimensions, Change of Basis, Linear Transformations, Matrix representation of the linear transformations.

Unit II
Partial Differential Equations & Fourier Transform: Solution of PDE by separation of variable method, Numerical solution of PDE using finite difference method, Elementary properties of FT, DFT.

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Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore
Shri Vaishnav Institute of Technology
M. Tech. (Textile Engineering) SEMESTER I

COURSE CODE	Category	COURSE NAME	TEACHING & EVALUATION SCHEME					Th	T	P	CREDITS
			THEORY			PRACTICAL					
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
MTMATX101	BS	**Advanced Mathematics**	60	20	20	-	-	3	1	0	4

Unit III
Probability Distributions: Discrete Random variable, Binomial and Poisson distributions, Continuous Random variable, Normal distribution, Concept of Sampling distribution and Theory of hypothesis.
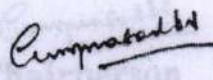
Unit – IV
Random or Stochastic processes: Random or Stochastic processes and classifications, Markov Processes, Markov chain, Queuing theory: M/M/1: ∞/FCFS, M/M/1: k/FCFS, M/M/N: ∞/FCFS.

Unit – V
Fuzzy Set: Fuzzy set, Fuzzy relation, Fuzzy arithmetic, Fuzzy logic.

Reference Books:
1. Higher Engg. Mathematics: B. S. Grewal, Khanna Publishers, Delhi
2. Higher Engg. Mathematics: E. Kreyzig, John Wiley & Sons (Asia) Pvt. Ltd.
3. Probability, Random variables & Random processes: Schaum's outlines.
4. Linear Algebra: Schaum's outlines.
5. Stochastic processes: J. Medhi, New age international publishers.
6. Calculus of finite differences and Numerica Analysis: Gupta and Malik
7. Fourier Transform: J. N. Sheddon
8. Fuzzy logic in Engineering: T. J. Ross Fuzz

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Board of Studies	Faculty of Studies		Shri Vaishnav Vidyapeeth
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Vishwavidyalaya, Indore	Vishwavidyalaya, Indore	Vishwavidyalaya, Indore	

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			THEORY			PRACTICAL					
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MTTX101	DCC	THEORY OF YARN MANUFACTURING	60	20	20	0	0	3	0	0	3

Legends: **L** - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** – Practical; **C** - Credit;
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Course Educational Objective (CEOs):

The students will be able to gain knowledge of theories involved in the various manufacturing process of the yarn and to provide the basic knowledge on the various generation of faults/defects in the product and its remedies effectively.

Course Outcomes (Cos):

After the successful completion of this course students are expected to be able to demonstrate the following knowledge skill and attitudes

Students will be able to:

1. Identify and Analyze the problems in the processing of fibres .
2. Apply knowledge for designing of spinning machines.
3. Understand the fundamentals of blending and mixing.
4. Solve the complex problems occurring at the time of manufacturing process.

Syllabus :
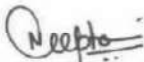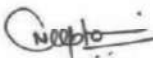## UNIT I FIBRE SELECTION MECHANISUM IN CARDING   10HOURS

Cotton fibre selection through bale management. Forces on fibres during opening and cleaning processes and its effect. Carding process, Multi licker-in opening and factors influencing the transfer ratio, Analysis of cylinder load and transfer efficiency. Technological considerations in the design of high production card. Card wire geometry.
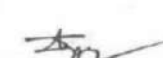
UNIT II FIBRE GEOMETRY IN PRE SPINNING PROCESS   11HOURS

Fibre configuration in card and drawn sliver. Hook removal and its significance. Sliver irregularity. Fibre movement in drafting field. Suppression of drafting wave. Drafting force. Roller slip. Roller eccentricity and vibration. Fibre fractionation in comber. Combing performance. Principles of autolevelling. Agronomy in Textile Machineries.

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			THEORY			PRACTICAL					
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MTTX101	DCC	THEORY OF YARN MANUFACTURING	60	20	20	0	0	3	0	0	3

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UNIT III SPINNING FORCES ON YARN   8HOURS

Blending of fibres, evaluation of blending efficiency. Analysis of forces on yarn and traveller. Spinning tension in ring and rotor spinning. Spinning geometry, Twist flow in ring and rotor spinning. End breaks during spinning. False twisting and friction spinning principles.

Unit IV PROCESS OPTIMIZATION OF SPINNING SYSTEMS   8HOURS

Spinning of micro denier fibre. Synthetic fibre spinning on cotton spinning system. Influence of high draft on yarn quality. Optimization of production speeds. Energy conservation and saving through process optimization. Yarn conditioning. Selection criteria for aprons, cots and top rollers. Control systems in spinning machinery.
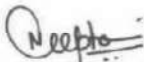
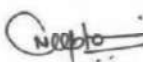## Unit V STRUCTURE-PROPERTIES RELATIONSHIP OF YARN   8HOURS

Types of yarn. Twisting forms and yarn contraction. Influence of fibre characteristics on yarn structure. Tensile behaviour of filament, spun, core spun and elastic yarns. Production and properties of textured yarn with emphasis on false twist and air-jet textured yarns. Analysis of structure-property relationship of rotor, air-jet and friction spun yarns.

References:

1. Grosberg P and Iype C, "Yarn Production-Theoretical Aspects", 1st Ed., The Textile Institute,UK, 1999.
2. Chattopadhyay R, "Advances in Technology of Yarn Production", 1st Ed., NCUTE, New Delhi,2002.
3. Rao M V S and Talele A B, "A Guide to Crimping / Texturing Technology", 1st Ed., Nasnal Printers and its associates, Surat, 1992.
4. Klein W, "Manual of Textile Technology- New spinning Systems", Vol.5, 1st Ed., The Textile Institute, UK, 1993.

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MTTX102	DCC	THEORY OF FABRIC MANUFACTURING	60	20	20	0	0	3	0	0	3

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Course Educational Objective (CEOs):

The students will be able to gain knowledge of theories involved in the various manufacturing process of the fabric and understand the various generation of faults/defects in the woven fabric and its remedies.

Course Outcomes (Cos):

Students will be able to:

1. Identify and Analyze the problems in the manufacturing of woven fabrics .
2. Apply knowledge for designing of weaving and preparatory machines.
3. Understand the fundamentals of yarn/fabric faults.
4. Solve the complex problems occurring at the time of fabric manufacturing process.

Syllabus

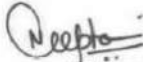#### UNIT I YARN QUALITY REQUIRMENTS IN WEAVING   10HOURS

Yarn quality requirements - weaving and winding - yarn faults, quality of splice/knot, knot factor and clearing efficiency, Optimum clearing of yarn; Classimate Faults, Wound yarn package requirements for different weft insertion system,
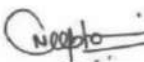
UNIT II DEVELOMENTS IN WEAVING PREPERATOTY PRESSES   8 HOURS

Control of ends break in warping, warp beam quality requirements; quality control in size recipe, size pick-up control, quality requirements of sized beam. Waste control in winding, warping and sizing. Development trends in winding, warping and sizing machines for improving quality of preparation and cost reduction.

UNIT III RECENT TRENDS IN LOOM DEVELOPMENT   10HOURS

Loom development trends and objectives. Beat-up force and pick spacing. Kinematics of sley with reference to shuttle loom. Electronic control of different motions of loom. Loom shed productivity control, fabric defects and their causes and remedies,

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			THEORY			PRACTICAL						
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*	L	T	P	CREDITS
MTTX102	DCC	THEORY OF FABRIC MANUFACTURING	60	20	20	0	0	3	0	0	3

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UNIT IV THEORETICAL ANALYSIS OF WEFT INSERTION IN SHUTTLELESS LOOMS
8 HOURS

Theoretical analysis of weft insertion in shuttleless loom. Fabric quality on Sulzer Projectile loom, Rapier looms, Air jet and Water jet looms. Air quality with respect to air jet loom, different propulsion aid used in air jet loom, flying stability of weft inserted by water jet loom, Different types of selvedges used in shuttleless weaving machines; Techno-economics of different shuttleless looms.
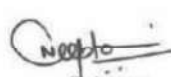
UNIT V DEVELOPMENT OF SPECIALITY LOOMS
12 HOURS

Multiphase loom, types – warp way and weft way multiphase loom, limitations and advantages of multiphase loom, rotatory beat up mechanism, Introduction to circular weaving; Weft velocity curves and comparison of different weft insertion system.

References:
1. Shuttleless Weaving - Dr. M. K. Talukdar
2. Principle of Weaving - Marks & Robinson
3. Textile Science & Technology Shuttleless Weaving Machines Oldrich, Talavasek & Vladimir Svaty
4. Modern Preparation and Weaving Machinery - A. Ormerod.
5. Hndbook of Weaving, Sabit Adanur, Ph. D.
6. Weaving Technology & Operation - A. Ormerod & Walter S. Sondhelm
7. Rapier Loom - WIRA
8. Filament Weaving NCUTE HRD Programme Coordinator Prof. P.A.Khatwani, Mr. S. S. Yardi,
9. Innovations in Weaving Machinery - (The Course of Loom Development) - Dr. Teruo Ishila
10. Modern Weaving Theory & Practice- R. B. Singh

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(2021-2023)
MTTX 103 (Elective 1)

COURSE CODE	CATEGORY	COURSE NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		L	T	P	CREDITS
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
MTTX113	DSE	STRUCTURE AND PROPERTIES OF FIBRES	60	20	20	0	0	3	0	0	3

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;
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Course Educational Objective (CEOs):

The students will be able to gain knowledge on structural properties of fibres and also to explain the mechanical , electrical and thermal behaviour of fibre and its measurement correctly.

Course Outcomes (Cos):

Students will be able to:

1. Understand and Analyze basic structure of fibres.
2. Apply knowledge and analyze to solve the complex behaviour of fibre.
3. Understand the Dielectric and frictional fundamentals of fibres.
4. Illustrate basic knowledge about the structural behaviour of fibre.
5. Remember the working Principles of various measuring instruments.

Syllabus

UNIT I STRUCTURE OF TEXTILE FIBRES   9 HOURS
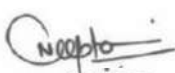
Study of fibre structure by X-rays, IR Spectroscopy, optical and electron microscopy (SEM). Determination of degree of crystallinity, orientation, crystal size and morphology. Structure of fibres, morphology and order in fibre structure. Theories of fine structures of fibres.
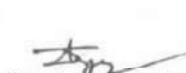
UNIT II MECHANIAL PROPERTIES OF TEXTILE FIBRES   10 HOURS

The Mechanical properties of fibres. Theories of elasticity. Visco elastic properties of fibres, various models like Maxwell, Irings etc, Thermodynamics analysis of deformation. Stress relaxation, creep, stress-strain relations, Temperature of visco-elasticity as applied to natural fibres. The Boltzman supervision principle and Nutting's Power Law, their application to fibres.

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MTTX 103 (Elective 1)

COURSE CODE	CATEGORY	COURSE NAME	END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*	L	T	P	CREDITS
			THEORY			PRACTICAL					
MTTX113	DSE	STRUCTURE AND PROPERTIES OF FIBRES	60	20	20	0	0	3	0	0	3

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; **P** – Practical; **C** - Credit;
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UNIT III HYDROPHILIC PROPERTIES OF FIBRES   8 HOURS

Sorption isotherms, heat of sorption, swelling and theories of moisture sorption. Hydrophilic and hydrophobic properties. Thermal Properties: Thermal expansion, Thermal conductivity;

UNIT IV ELECTICAL PROPERTIES OF FIBRES   10 HOURS

Di-electric properties. Effects of frequency and temperature on dielectric constant and static electricity. Electrical resistance and its measurement, Static electricity and measurement of static charge in fibres.

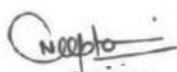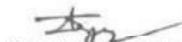## UNIT V FRICTIONAL PROPERTIES OF FIBRES   8 HOURS

Frictional properties – Theory of friction and lubrication and its application to fibres. Measurement of friction. Optical properties: Polarizability and refractive index. Birefringence and its measurement;

References:
1. Vaidya; Production of Synthetic Fibres.
2. Shennai VA; Technology of Textile Processing – Vol.I, Textile Fibres.
3. Gupta, Kothari; Progress in TST Vol.II Textile Fibres Developments & Innovations
4. Murthy HVS; Introduction to Textile Fibre
5. Moncrieff Man Made Fibres.
6. Akira Nakamura; Fibre Science & Technology (Translated from Japanese).
7. Mishra SP; A Text Book of Fiber Science & Technology.
8. Tatsuya Hongu, Glyn O. Philips; New Fibers 2nd Edition.

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			THEORY			PRACTICAL		L	T	P	CREDITS
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
MTTX123	DSE	APPAREL ENGINEERING AND QUALITY CONTROL	60	20	20	0	0	3	0	0	3

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; **P** – Practical; C - Credit;
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Course Educational Objective (CEOs):

The students will be expose to the basic knowledge of the mechanism of sewing, quality parameters required for fabric and garment as per the customer requirement.
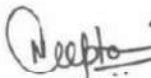
Course Outcomes (Cos):
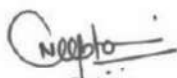
Students will be able to:

1. Stitch the garment choosing the correct stitch and stitching machine
2. Assess the right quality of the fabric required as per the application.
3. Analyze and find the stitching defects produce during the stitching operation and provide the remedial solutions for the same
4. Select the correct thread, trim and accessories required in the garment

Syllabus

UNIT I MECHANICS OF SEWING OPERATION

Mechanics of sewing operation: Feeding mechanism, mechanism of generation of needle thread tension, feed dog setting mechanism, stresses and heat generated during sewing, interaction of feed and pressure, sewing dynamics. Measurement and controls in sewing operation: Pressure, sewing speed, thread tension, needle temperature, needle penetration force.

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MTTX123	DSE	APPAREL ENGINEERING AND QUALITY CONTROL	60	20	20	0	0	3	0	0	3

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UNIT II FABRIC QUALITY ASSESSMENT FOR CLOTHING

Fabric quality assessment for clothing: Fabric quality requirement for high quality garments, low stress fabric mechanical properties and their effect on sewing operation. Use of FAST and KES system. Fabric mechanical properties and sewing operation interaction: Tailor ability and formability. Lindberg theory, optimization of sewing parameters by using fabric mechanical property, optimization of finishing parameters such as steam, pressure, vacuum, for getting desired effect.
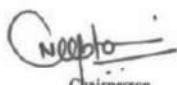
UNIT III FABRIC DEFECT ANALYSIS FOR CLOTHING

Fabric defect analysis in clothing: Defect identification, bow and skewness, correlating defect with back process, value loss. Quality control in apparel manufacturing: Determination of sewability, seam pucker, seam slippage and needle cutting index, evaluation of cutting defect, fusing defect, sewing defect, inspection of dimension, appearance, drape, change in color, shape and spots.

UNIT IV SEWING THREAD PROPERTIES AND ANALYSIS

Measurement and selection of sewing thread properties for different fabrics: Optimization of sewing parameters such as ticket number, needle number, yarn tension, stitch density and stitch type for desired sew-ability.

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			THEORY			PRACTICAL					
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
MTTX123	DSE	APPAREL ENGINEERING AND QUALITY CONTROL	60	20	20	0	0	3	0	0	3

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;
*Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.
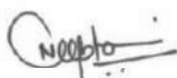
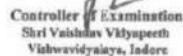## UNIT V SELECTION OF FASHION ASSESARIES

Selection of lining and interlining fabrics for various shell fabric: Evaluation of lining and interlining fabric, determination of compatibility. Packaging of finished garment, final random inspection of finished garments, packaging method, safety norms. Accessories: Buttons, hook and eye, jips, velcro.

References:

1. Garment Technology for fashion Design – Gerry Cooklin
2. Introduction to clothing manufacture –Gerry Cooklin.
3. Technology of Clothing manufacture-Carr.
4. Technical Textiles, Shaleco E, Bradlock and Marce O'Hall cony
5. Introduction to clothing production management – Chuter A.J
6. Managing Quality in the Apparel Industry – Pradip V. Mehta, S. K. Bharadwaj
7. Progress in Textiles Science and Technology Vol.I Testing and QM; V. K. Kothari

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COURSE CODE	CATEGORY	COURSE NAME	THEORY END SEM University Exam	THEORY Two Term Exam	THEORY Teachers Assessment*	PRACTICAL END SEM University Exam	PRACTICAL Teachers Assessment*	L	T	P	CREDITS
MTTX133	DES	ADVANCES IN DYEING AND PRINTING	60	20	20	0	0	3	0	0	3

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;
*Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

Course Educational Objective (CEOs):

1. To impart knowledge about advances in dyeing and printing process.
2. To enable the students to work in modern textile chemical processing plants.
3. To enhance the skill of students to improve the quality of dyed and printed textile materials.

Course Outcomes (Cos):

Students will be able to:
1. Explain the core concept of advanced dyeing and printing processes.
2. Solve the problems occurred during dyeing of yarns and fabrics in modern industries.
3. Develop the different shades and colour pallets of yarns and fabrics.
4. Analyze the physical and chemical behavior of dyed yarns and fabrics.
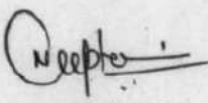5. Explain the principle & manufacturing process of coloured textile materials.
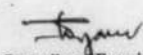
Syllabus

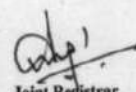### UNIT I Advances in dyeing of fibers   10 Hours

Advances in dyeing of natural fibers(Cotton, wool, silk etc.).Mass coloration of Man Made fibres viz, polyester, nylon, acrylics, viscose and various methods.
Polyester dyeing -Preparation of fabric for dyeing, Carrier dyeing of Polyester, Advantages and limitations of carrier dyeing. High temperature dyeing process, Effects of different auxiliaries, Thermo fixation Process –Pad liquor preparation, Industrial practice and Thermofixation equipment for dyeing. Dyeing of microdenier and texturised polyester

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			THEORY			PRACTICAL					
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*	L	T	P	CREDITS
MTTX133	DES	ADVANCES IN DYEING AND PRINTING	60	20	20	0	0	3	0	0	3

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;
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UNIT II Nylon and Acrylic Dyeing
09 Hours

Dyeing theory of Nylon, Dyeing with acid and metal complex dyes, leveling agents, swelling agents, High and low temperature dyeing, dyeing with disperse and reactive dyes. Preparation of acrylic for dyeing, mechanism of dyeing with cationic dyes, Batch and continuous dyeing process of poly / cellulose blends, Dyeing of poly / wool, polyester / Acrylic, Polyamide / Wool, Acrylic /Wool, Acrylic / Silk, Dyeing of polyester / modified polyester blend, polyester / Lycra, Acrylic / cellulosic blend. Dyeing machinery- Jet dyeing machine, Beam dyeing, Soft flow machine, closed jiggers and continuous dyeing ranges.

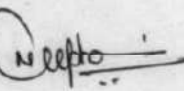## UNIT III   Introduction to advance printing
11 Hours

Methods and styles of printing, classification of printing thickeners and methods of thickeners paste preparation, emulsion thickeners, synthetic thickener. Methods of printing - Screen printing- preparation of screens, Manual and automatic flatbed screen printing and its morden developments, rotary screen printing. Advance methods of print fixation, and machines used for after treatment of printing goods-steaming, ageing, curing etc. Pigment printing of cotton
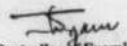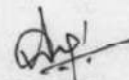
UNIT IV Digital printing
08 Hours

Inkjet printing of textiles – principle of ink drop formation and deposition. Concept of print heads, working and salient features of Inkjet printing machines. Digital techniques for printing pigment, reactive and disperse colours. Printing inks and their specifications. Recent developments in Inkjet printing and market trends.

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COURSE CODE	CATEGORY	COURSE NAME	TEACHING & EVALUATION SCHEME								CREDITS
			THEORY			PRACTICAL		L	T	P	
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
MTTX133	DES	ADVANCES IN DYEING AND PRINTING	60	20	20	0	0	3	0	0	3

Legends: L - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** – Practical; **C** - Credit;
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UNIT V Eco-friendly preparation, dyeing, printing   07 Hours
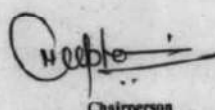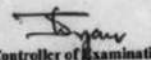
Pollutants in processing industry and their effect on ecology, Standards for fresh water as well as wastewater, Special techniques for reducing pollution caused by textile processing, Eco- friendly substitutes of chemicals and processes

Reference books:

1. Technology of Dyeing Vol 6 by V.A. Shenai
2. Dyeing & Chemical technology of Textile Fibres by E.R. Trotman
3. Textile Chemistry Vol II by R.H. Petrers
4. Chemical Processing of Synthetic Fibres & Blends by Datye & Vaidya
5. Technology of Printing - V.A. Shenai
6. Printing - D.G. Kale
7. Technology of textile printing – R.S. Prayag
8. Textile Printing- L W C Miles (Dyers Company Publication Trust, Bradford, E)
9. Textile Ink Jet Printing – Edited by T L Dawson & B Glover, 2004, The Society of Dyers & Colourists Publication
10. Sustainable Apparel, Richard Blackburn
11. Sustainable Textiles, Richard Blackburn
12. Handbook of Sustainable Textile Production, Marion I Tobler-Roh
13. Environmental Issues -Technology Options for Textile, Chavan R.B., Radhakrishnan J
14. Environmental Chemistry of dyes and pigments, Wiley, Reife A and Freeman H

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			THEORY			PRACTICAL		L	T	P	CREDITS
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment+				
MTTX105	SEC	ADVANCED CAD IN TEXTILES	0	0	0	30	20	0	1	2	2

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;
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given that no component shall exceed more than 10 marks.

Course Educational Objective (CEOs):

Student will expose to the functions of Advanced CAD in Textile and conceptual knowledge to the Industry as a Pattern Designer.

Course Outcomes (Cos):

Students will be able to:

1. Apply their knowledge on the various functions of the Advanced CAD in textile
2. Make different patterns for garment
3. Understand the garment process & knit, woven designing.
4. Use their knowledge for different tools of ADV.CAD in Textile

Syllabus   28 HOURS

Principles of design, elements of design, marker planning, grading system, size chart, silhoueltes, shape and sizes, relationship to fashion, different dart system, black measurement, basic information regarding software, study latest software system.

Practice block making on garment software, variant file, adjustment of different view of garment components, making of different patterns with seam allowances, different techniques of pattern making, notches, curve, etc. marker creation.

Mood board, story board making, simulation, use of yarn library, knit and weave structure, weave library.

Vector, use of different drawing tools, bitmap pictures, different studios, color pallatte.

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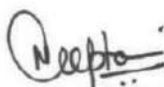| COURSE CODE | CATEGORY | COURSE NAME | TEACHING & EVALUATION SCHEME | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | THEORY | | | PRACTICAL | | | | | |
| | | | END SEM University Exam | Two Term Exam | Teachers Assessment* | END SEM University Exam | Teachers Assessment* | L | T | P | CREDITS |
| MTTX105 | SEC | ADVANCED CAD IN TEXTILES | 0 | 0 | 0 | 30 | 20 | 0 | 1 | 2 | 2 |

Legends: **L** - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** – Practical; **C** - Credit;
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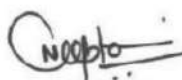
References:

1. Mens wear pattern making, Alam Parwez Khan, Punkaj Pub. Delhi, 2007
2. Ten steps to fashion freedom, Mayfield

List of Practicals:

1. To study the basic terminologies of Design.
2. To study the basic terminologies of Pattern Making.
3. Introduction & installation of Lectra s/w.
4. To prepare a Draft of men's shirt. (According to Specification)
5. To prepare Marka Plan of shirt on graph paper & calculate the consumption of material.
6. To Grade the shirt pattern in 3 sizes (S, M, L- 40, 42, 44-on graph paper).
7. To study the Modaris s/w in detail with their tools.
8. To prepare a Draft of a men's shirt. (According to Specification) on Modaris s/w.
9. To Grade the shirt pattern in 3 sizes (S, M, L- 40, 42, 44) on Modaris s/w.
10. To study the Diamino s/w in detail with their tools
11. To prepare efficient Marka Plan of shirt on Diamino s/w. (Take the print out).
12. To study the Weave s/w in detail with their tools.

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