



Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore

Name of Program: DPLOMA (Garment and Fashion Technology)

SUBJECT CODE	CATEGORY	SUBJECT 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*				
DML301	ODS	ENVIRONMENT AND ENERGY STUDIES	60	20	20	0	0	3	1	0	4

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 Objectives (CEOs):

1. To understand sources of information required for addressing environmental challenges
2. To identify a suite of contemporary tools and techniques in environmental informatics
3. To apply literacy, numeracy and critical thinking skills to environmental problem-solving

Course Outcomes (COs):

Students will be able:

1. To apply the principles of ecology and environmental issues that apply to air, land and water issues on a global scale.
2. To develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment.
3. To demonstrate ecology knowledge of a complex relationship between predators, prey, and the plant community.

Course Contents:

Unit I

Environmental Pollution and Control Technologies: Environmental Pollution & Control: Classification of pollution, Air Pollution: Primary and secondary pollutants, Water pollution: Sources and types, Noise Pollution: Sources and Health hazards, Solid Waste management composition and characteristics of e - Waste and its management

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Unit II

Natural Resources: Classification of Resources: Living and Non - Living resources, water resources: use and over utilization of surface and ground water, floods and droughts, Dams: benefits and problem,

Unit III

Ecosystems: Definition Classification, Structure and function of an ecosystem,

Unit IV

Biodiversity and its Conservation: Introduction - Definition: genetic, species and ecosystem diversity. Bio-geographical classification of India - Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values

Unit V

Environmental Policy, Legislation & EIA: Environmental Protection act, Legal aspects Air Act- 1981, Water Act, Forest Act, Municipal solid waste management and handling rules, biomedical waste management and handling rules, hazardous waste management and handling rules

References:

1. Agarwal, K.C.,(latest edition).Environmental Biology, Bikaner :Nidi Pub. Ltd.,
2. Brunner R.C.(latest edition) Hazardous Waste Incineration, McGraw Hill Inc.
3. Clank R.S. .,(latest edition. Marine Pollution, Clanderson Press Oxford (TB).
4. Environmental Encyclopedia, Jaico Pub. Mumbai,
5. De A.K (latest edition) Environmental Chemistry, Wiley Wastern Ltd.
6. Erach Bharucha(2005).Environmental Studies for Undergraduate Courses by for University Grants Commission.
7. R. Rajagopalan(2006).Environmental Studies. Oxford University Press.

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			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
DTTX401	DCS	INTRODUCTION TO FASHION TECHNOLOGY - II	60	20	20	0	0	3	1	0	4

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 Objectives (CEOs):

1. To impart knowledge of silhouettes and wardrobe planning
2. To practice the factors affecting fashion and trend
3. To introduce about surface ornamentation
4. To draw pattern using different techniques

Course Outcomes (COs):

Students will be able:

1. To draw the pattern for different garments
2. To check and detect the defects and irregularities in design development
3. To develop new designs using different principles of designing
4. To add value in garments using surface ornamentation.

Course Contents:

Unit I

Silhouettes – Types and their application in everyday use. Skirts - Basic concepts in designing the variety of skirts. Trousers – Basic concepts in designing the variety of trousers. Wardrobe planning - design development for formal, casual, party and sports wears for men, women and kids based on their location.

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Unit II

Latest Fashions based on age, Gender Balance, Nationality Occupation, Socio-Economic Status. Climate conditions and Technological developments.

Unit III

Introduction to Surface Ornamentation and Embroidery – General rules for Hand and Machine Embroidery – Special Attachments to Sewing Machines for Embroidery – Tools and Equipments – Needles – Threads.

Unit IV

Pattern making – methods, Types of paper patterns, principles of pattern Drafting – Drafting basic bodice front, back & Sleeve Draping – steps in draping a basic bodice front, back & sleeve, Fitting-principles of fitting, Pattern layout, Pattern alteration

Unit V

Figure irregularities – stout figure, thin figures, Slender figure, broad shoulders, Narrow shoulders, round shoulders, flat bust, Large bust, large Abdomen, large hips. Faces – round, Large, small, broad, chin – Prominent and Jaw, prominent forehead

References:

1. Elements of Fashion and Apparel Design - Sumathi, G.J., New Age International Publishers, New Delhi.
2. Fashion Source Book - Kathryn McKelvey, Balckwell Publishing, New Delhi.
3. Design Concepts - Jane Mills and Janet K.Smith, Fairchild Publications, New York.
4. Wardrobe strategies for women - Judith Rasband , Delmar publishers, London.
5. Mirianr Guerreiro & Beatrice Judelle, Inside the fashion business- 4th edition Mac Millan -Publishing Company, NewYork.

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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*				
DTTX402	DCS	KNITTING TECHNOLOGY	60	20	20	30	20	3	0	2	4

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 Objectives (CEOs):

1. To provide the knowledge on preliminary functions of knitting technology
2. To understand the technique of knitted fabric production

Course Outcomes (COs):

Student will be able:

1. To apply their knowledge on the various functions of the Knitting technologies.
2. To calculate the production & cover factor of the knitted fabric
3. To solve the different problem & understand the quality aspects for the knitting.
4. To use their conceptual knowledge for knitting industries

Course Contents:

Unit I

Introduction to knitting and its comparison with weaving. Weft Knitting classification, specification of various knitting machines, elements of knitting machine, needle gaiting, principle of operation of different single jersey machines, knitting cycle, positive yarn feeder.

Unit II

Principle of operation of different double jersey machines, knitting cycle, positive yarn feeder, and production calculation related single jersey and double jersey. Basic single jersey and double jersey structures.

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Unit III

Horizontal stripping and plating, application of electronics and automation in knitting machines.

Unit IV

Warp knitting - Introduction to warp knitting, working principle and patterning in Tricot and Raschel Machines, control of yarn feeding in warp knitting machines, requirement of yarn quality.

Unit V

Various defect generated in the knitting machines and their remedies. Maintenance of knitting machines, gauges, setting and check points. Modern developments in knitting machines

List of Experiment (Expand it if needed):

1. To study the single jersey Circular Knitting machine
2. To study the passage of yarn through single jersey machine
3. To study the gauging and setting of various component on single jersey machine
4. To study the fabric sample on single jersey machine
5. To study the setting of various stop motion on single jersey machine
6. To study the double jersey Circular Knitting machine
7. To study the passage of yarn through double jersey machine
8. To study the gauging and setting of various component on double jersey machine
9. To study the fabric sample on double jersey machine
10. To study the setting of various stop motion on double jersey machine

References:

1. Knitting Technology Prof. D. B. Ajgaonkar
2. Knitting Technology - Spencer
3. Knitting Technology - Pitman
4. Knitted Clothing Technology Terry Brackenbury
5. Machine Knitted Fabrics Felting Techniques Janet Natn

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			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
DTTX403	DCS	TEXTILE CHEMICAL PROCESSING	60	20	20	30	20	3	0	2	4

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 Objectives (CEOs):

1. To use effectively principles and mechanisms of pre-treatment processes on textile goods.
2. To dye, print and finish different types of fabric accurately according to requirement.

Course Outcomes (COs):

Student shall be able:

1. To apply various principles and mechanisms of pre-treatment processes in textile wet processing.
2. To differentiate the various chemicals used in the preparatory, Dyeing and utilize them according to end use
3. To differentiate the various chemicals used in the printing, finishing process and utilize them according to end use

Course Contents:

Unit I

Sequence of chemical processing of textiles, introduction to various preparatory processes e.g. singeing, scouring and bleaching for different natural and synthetic fibre fabrics. Mercerizing of cotton, Optical whitening agents and their use.

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Unit II

Classification of different classes of dyes and application, brief introduction to dyeing of natural fibre fabric with various dye classes e.g. Direct, Basic, Acid, Sulphur, Vat, and Solubilised vat, Azoic, Reactive and Disperse.

Unit III

Introduction to printing different methods and styles of printing on natural and synthetic fibre fabrics. Introduction to different types of printing machines e.g. block, flat screen, roller and rotary screen printing.

Unit IV

Introduction to finishing of natural and man-made fiber fabrics; Classifications of various finishes, finishing materials - their application; concept on raising and milling machines.

Unit V

Permanent and semi permanent finishes, silicon softening, milling, crease resistant, anti shrink, water repellent, water proof, flame proofing, setting of synthetic fibre fabrics, antistatic and soil release finishes. Easy care finishing of cotton and polyester / cotton blends.

List of Practical:

1. To study the detail process flow chart of textile chemical processing.
2. To study the desizing of grey cotton fabric sample
3. To study the scouring of desized cotton fabric sample
4. To study the bleaching of scoured cotton fabric sample
5. To study the dyeing of bleached cotton fabric sample using direct dye.
6. To study dyeing of bleached cotton fabric sample using vat dye.
7. To study dyeing of degummed silk fabric sample using acid dye.

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8. To study determination of different fastness properties of dyed samples
9. To study dyeing of polyester fabric sample using disperse dye.
10. To study printing with different dyestuff on cotton

List of References:

1. Scoring and Bleaching – V A Shennai
2. Dyeing – V A Shennai
3. Technology of printing Vol. IV – V A Shennai
4. Technology textile finishing Vol. X - V A Shennai
5. Textile Finishing - W.S.Murphy
6. A Glimpse of the Chemical Technology of Textile Fibres - R.R. Chakraverty

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			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
DTTX404	DCS	GARMENT CONSTRUCTION - II	60	20	20	30	20	3	0	2	4

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 Objectives (CEOs):

1. To impart knowledge of fusing technology and equipments
2. To understand the feed mechanism used in different sewing machines
3. To provide knowledge of different parts of sewing machine, their function, spreading, cutting and production of garments.

Course Outcomes (COs):

Students will be able:

1. To fuse the parts as per requirement of the garment
2. To effectively use type of feeding mechanism based on fabric
3. To demonstrate and suggest the additional attachment of sewing machine wherever required
4. To monitor the spreading, cutting and manufacturing of the garment products in the industry

Course Contents:

Unit I

Fusing technology, Base cloth, resins, coating system, fusing machine and equipments, Quality control

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Unit II

Feed system, differential feed system, Adjustable feed system, needle feed system, compound feed system, unison feed system, and puller feed system

Unit III

Machine attachments, feet, folders, binders, stitching and edge guides, right angle double fold binders, lap seam folders, yoke setter, flat stitching guide, sewing arm stitching guide, cylindrical stitching guides

Unit IV

Spreading and cutting, spreading modes, method of spreading, fabric control device, requirement of spreading, cutting methods, cutting accessories and instruments

Unit V

Production technology manual system, make through section or process system, Progressive bundle system, straight line, conveyor belt transport, UPS, quick response system

List of Practical (Expand it if needed):

1. To study fusing of garment pieces
2. To study cutting instruments used in garment industry
3. To study puller feed mechanism
4. To study drop feed mechanism
5. To study different feed mechanism
6. To study adjustable top feed mechanism
7. To study needle feed mechanism
8. To study time and motion study of shirt
9. To study time and motion study of trouser
10. To study time and motion study of jacket

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References:

1. Pattern making for fashion design - H.G. Armstrong
2. Metric pattern cutting - Winifred Aldrich
3. Pattern making made easy - Gollian Holman
4. Technology of clothing manufacture - Carr & Latham
5. Apparel manufacturers handbook - Jacob Solinger

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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*				
DTTX405	DCS	CAD IN TEXTILE	0	0	0	30	20	0	0	2	1

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 Objectives (CEOs):

1. To give exposure to the preliminary functions of CAD in Textile
2. To provide conceptual knowledge for the Industry as a Pattern Designer.
3. To provide knowledge of fabric structure, figure designing for industries.

Course Outcomes (COs):

Student will be able:

1. To apply their knowledge on the various functions of the CAD in textile
2. To make different Fabric designing
3. To demonstrate skill on the fabric making process, print designing for fabric.
4. To use their knowledge for different tools of CAD in Textile

List of Practical (Expand it if needed):

1. Weaving structure
2. Installation of CAD software
3. Various menu commands
4. To prepare design on dobby CAD software with proper parameters and color effects. To manage dobby design library with twill honey comb, huck back design.
5. To draw figured pattern on graph paper and applyto Jacquard CAD software with proper parameters and color effects. Take a printout.
6. To manage jacquard design library with same figure to different weave.

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7. To draw figured pattern on graph paper and apply to printex CAD software with proper parameters and color effects. Take a printout.
8. To manage printex design library with different yarn and color specification.
9. Introduction of electronic jacquard punching system

References:

1. Fabric Structure & Design - Gokarneshnan, N.
2. CAD Manuals
3. CAD-Cam Principles and applications; Rao(TMh)

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Name of Program B Tech (Textile Engineering)

SUBJECT CODE	CATEGORY	SUBJECT 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*				
DTTX406	DCS	YARN, FABRIC AND GARMENT STUDIES	0	0	0	0	50	0	0	2	1

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 Objectives (CEOs):

1. To provide knowledge of various types of yarn.
2. To give exposure to the various types of woven, knitted and non-woven fabric

Course Outcomes (COs):

Student will be able:

1. To identify and analyse the various types of yarn and fabric
2. To solve the various ambiguities among the various types of fabric
3. To distinguish the requirement for the various types of yarn and fabrics

List of Experiments (Expand it if needed):

1. To collect and study of various types of single yarns
2. To collect and study of various types of double yarns
3. To collect and study of various types of synthetic yarns
4. To collect and study of various types of fancy yarns
5. To collect and study of various types of woven fabrics
6. To collect and study of various types of knitted fabrics

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7. To collect and study of various types of non-woven fabrics
8. To collect and study of various types of packages
9. To collect and study of various measurement of garments
10. To collect and study of various measurement of Industrial garments

Note: Students will study various types of yarns, fabrics and garments during one day mill Visit and also study various aspects about the same in the department workshops/labs as assign by the concern faculties.

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