



## Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore

### ML307 ENVIRONMENTAL MANAGEMENT AND SUSTAINABILITY

SUBJECT CODE	CATEGOR Y	SUBJECT NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		L	T	P	CREDITS
			END SEM University Exam	Two Term Exam	Teachers Assesse ment*	END SEM University Exam	Teachers Assesse ment*				
ML-307	Compulsory	Environmental Management and Sustainability	60	20	20	0	0	4	0	0	4

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

\*Teacher's Assessment shall be based upon following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

#### Course Objective

1. To create awareness towards various environmental problems.
2. To create awareness among students towards issues of sustainable development.
3. To expose students towards environment friendly practices of organizations.
4. To sensitize students to act responsibly towards environment.

#### Examination Scheme

The internal assessment of the students' performance will be done out of 40 Marks. The semester Examination will be worth 60 Marks. The question paper and semester exam will consist of two sections A and B. Section A will carry 36 Marks and consist of five questions, out of which student will be required to attempt any three questions. Section B will comprise of one or more cases / problems worth 24 marks.

#### Course Outcomes

1. The course will give students an overview of various environmental concerns and practical challenges in environmental management and sustainability.
2. Emphasis is given to make students practice environment friendly behavior in day-to-day activities.

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### COURSE CONTENT

#### Unit I: Introduction to Environment Pollution and Control

1. Pollution and its types (Air, Water, and Soil): Causes, Effects and Control measures
2. Municipal Solid Waste: Definition, Composition, Effects
3. Electronic Waste: Definition, Composition, Effects
4. Plastic Pollution: Causes, Effects and Control Measures

#### Unit II: Climate Change and Environmental Challenges

1. Global Warming and Green House Effect
2. Depletion of the Ozone Layer
3. Acid Rain
4. Nuclear Hazards

#### Unit III: Environmental Management and Sustainable Development

1. Environmental Management and Sustainable Development: An overview
2. Sustainable Development Goals (17 SDGs)
3. Significance of Sustainable Development
4. Environment Friendly Practices At Workplace and Home (Three Rs' of Waste Management, Water Conservation, Energy Conservation)

#### Unit IV: Environmental Acts

1. The Water (Prevention and Control of Pollution) Act, 1974: Objectives, Definition of Pollution under this act, Powers and Functions of Boards
2. The Air (Prevention and Control of Pollution) Act, 1981: Objectives, Definition of Pollution under this act, Powers and Functions of Boards
3. The Environment (Protection) Act, 1986: Objectives, Definition of important terms used in this Act, Details about the act.
4. Environmental Impact Assessment: Concept and Benefits

#### Unit V: Role of Individuals, Corporate and Society

1. Environmental Values
2. Positive and Adverse Impact of Technological Developments on Society and Environment
3. Role of an individual/ Corporate/ Society in environmental conservation
4. Case Studies: The Bhopal Gas Tragedy, New Delhi's Air Pollution, Arsenic Pollution in Ground Water (West Bengal), Narmada Valley Project, Cauvery Water Dispute, Fukushima Daiichi Disaster (Japan), Ozone Hole over Antarctica, Ganga Pollution, Deterioration of Taj Mahal, Uttarakhand flash floods

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### Suggested Readings:

1. Rogers, P.P., Jalal, K.F. , Boyd, J.A.(Latest Edition) . **An Introduction to Sustainable Development.** Earthscan
2. Kalam, A.P.J. (Latest Edition) .*Target 3 Billion: Innovative Solutions Towards Sustainable Development.* Penguin Books
3. Kaushik , A. and Kaushik (Latest Edition).*Perspectives in Environmental Studies.* New Delhi: New Age International Publishers.
4. Dhameja, S.K. (Latest Edition). *Environmental Studies.* S.K. Kataria and Sons.New Delhi
5. Bharucha,E. (Latest Edition). *Environmental Studies for Undergraduate Courses.* New Delhi: University Grants Commission.
6. Wright, R. T. (Latest Edition). *Environmental Science: towards a sustainable future* .New Delhi: PHL Learning Private Ltd.
7. Rajagopalan, R. (Latest Edition). *Environmental Studies.* New York: Oxford University Press.

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Name of Program: B.Sc. (Fashion Design)

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*				
BSFD401		DYEING AND PRINTING	60	20	20	30	20	3	1	2	5

**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 build an understanding about application of various pretreatment and dyeing processes
2. To impart knowledge about different methods and styles of printing

## Course Outcomes (COs):

Students will be able:

1. Identify different classes of dyes used for different textile materials
2. Choose the dyes and make recipe for dyeing different textile materials
3. Select the dyes and prepare suitable printing paste for printing textile materials.

## Course Contents:

### Unit I

#### Preparatory processes of dyeing and printing

Dry preparatory process: Mending, Shearing and Cropping, Singeing.

**Desizing:** Objectives, classification and mechanism of removal of starch in various methods; **Scouring:** Objectives, mechanism of removal of impurities, recipe and controlling parameters involved; **Bleaching:** Objectives of bleaching, hypochlorite, peroxide and chlorite bleaching; **Mercerization:** Objectives, Process parameters and operation, mechanism related to various physical and chemical changes in cotton during mercerization.

### Unit II

#### Dyeing Theory

**Concept of colour:** Visible spectrum, wavelength and blindness of colour. Metamerism. Primary and Secondary Colour, shade , tint, hue , chroma.

**Classification of Dyes:** according to chemical constitution and according to application, Properties of dye, Dye-fibre interaction; measurement of color fastness, color strength and color difference

  
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### Unit III

Dyeing of textiles made up of cellulosic and protein fibres

Application of Direct, Reactive, Vat, Sulphur, Azoic dyes on fabrics made up of cellulose fibres. Application of Acid, Basic and Reactive dyes on wool and silk fabrics. Eco friendly chemicals and banned dyes.

### Unit IV

Dyeing of textiles made up of synthetic and regenerated fibres

Dyeing of polyester fabric using disperse dye by HTHP, Carrier and Thermosol processes; dyeing of P/C and P/W blended fabrics with suitable dyes; Dyeing of Nylon with acid dyes; dyeing of acrylic with cationic dyes.

### Unit V

#### Printing

**Printing:** Object of Printing; Print Paste: Constituent and characteristics of print paste; Printing methods: block, roller and screen printing processes; transfer printing; Drawbacks and advantages of each method; Study of different styles of printing: Direct, Discharge and Resist; Printing of cotton (with reactive, vat and azoic dyes and pigment), silk and wool (with acid dyes).

### References:

1. **Dyeing and Chemical Technology of Textile Fibre** - Trotman, E.R., Charles Griffin and Co. Ltd., London. 1991.
2. **Technology of Bleaching and Mercerizing - Vol. II** - Shenai, V.A., Sevak Publications Mumbai, 1991.
3. **Principle and Practice of Dyeing** - Shenai, V.A., Sevak Publisher, Bombay, 1991.
4. **Textile Preparation & Dyeing** - A K Roy Choudhary, Science Publishers, USA, 2006.
5. **Technology of Printing** - Shenai V A, Sevak Publications, Mumbai, 1990.
6. **Advances in the dyeing and finishing of technical textiles** - Gulrajani M. L. Woodhead Publishing Ltd., 2013.
7. **Chemical Technology in the Pre-treatment Process of Textiles** - Karmakar S. R., Elsevier sciences B.V., 1999.

  
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### List of Practical (Expand it if needed):

1. Scouring and bleaching of grey cotton fabric.
2. Dyeing of cotton fabric using cold brand reactive dye.
3. Dyeing of silk fabric using acid dye.
4. Dyeing of wool fabric using acid dye.
5. Dyeing of silk using natural dye.
6. Dyeing of wool using henna(Lawsone) natural dye.
7. Printing of cotton fabric using pigment by block printing method.
8. Printing of Polyester/cotton blended fabric using pigment by screen printing method.
9. Printing of cotton fabric using reactive dye by screen printing method.
10. Printing of cotton fabric using reactive dye by resist style of printing.
11. Printing of cotton fabric with natural dye.

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Name of Program: B.Sc. (Fashion Design)

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*				
BSFD402		FASHION ILLUSTRATION AND DESIGN	60	20	20	0	20	3	1	2	5

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

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## Course Educational Objectives (CEOs):

1. To introduce about the anatomy of human figure and measurement
2. To study the drafting and its layout
3. To demonstrate the development of dress forms fitting and pattern alterations
4. To survey for the size and grade determination of garments

## Course Outcomes (COs):

Students will be able to:

1. Draw and measure the garment as per specification of human body
2. Make and check the drafting layouts
3. Prepare and modify the designs based on dress form provided
4. Fix grade and alter the pattern and final products as customized by the end user

## Course Contents:

### Unit I

Anatomy: proportion and disproportion of human figure. Figure types and variations-normal figures measurements and its importance. Standard body measurements for children, ladies and gents. Sequence of taking body measurements for various age groups and sex-recording of measurements, standardization of body measurements.

### Unit II

Drafting: Consideration while cutting paper patterns-preparation of paper patterns, importance of paper patterns-types, Principles for pattern drafting - Advantages. Layout-open layout- Lengthwise layout- Crosswise layout- Double layout- combination layout-principles of layout-laying of different patterns on different types of fabric. Drafting basic pattern for body, sleeve, collar, yoke, and skirt.

### Unit III

Style reading: Preparation of dress form and draping fabric for various garments-Advantages of draping style reading of basic bodies, different types of collars, sleeves, cuffs and pockets. Flat pattern techniques: Fitting and pattern alteration: fitting-

  
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definition- principles of a good fit. Causes for poor fit, checking the fit of a garment, solving fitting problems in various garments-basic principles, fitting techniques.

### Unit IV

Pattern alterations: Importance of altering patterns, principles of pattern alterations, common pattern, alterations in a blouse. Alteration of pattern for irregular figures. Pattern Grading: Master grades-basic back grading-basic front grading-basic sleeve grading-basic collar grading-basic facing grading of one piece collar and lapel-grading of set in sleeves-principles of grading full raglan sleeve, principles of magyar sleeves.

### Unit V

Garments sizing and surveys: women's grading increments reference-area commentaries-selecting a grading system. Multi track grading: track grading-simplified two dimensional system-trouser grading-Jacket grading-shirt sizing and grading-Men's waistcoat-grading and size charts

### References:

1. Practical clothing construction, Thomson & Co. Madras, 1974 - Mary Mathews
2. Dress making simplified, Black well science, 1987 - Cock V.

### List of Practical (Expand it if needed):

1. Study of types and techniques of illustration
2. Study of basic human anatomy.
3. Constant proportions – Children-Men and Women in Various poses.
4. Drawing face and hairstyles.
5. Drawing arms and legs with accessories.
6. Design details –Silhouette and its types.
7. Drawing different types of necklines, collars, sleeves and cuffs.
8. Drawing blouses, skirts, pants and coats.
9. Costume drawing- Drawing the details on the anatomy - Sketching the fall of the fabric- Accessories drawing.
10. Sketching different types of garments and costumes with black pen, water color, sketching.

  
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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*				
BSFD403		COMPUTER APPLICATION IN FASHION DESIGN	60	20	20	30	20	3	1	2	5

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## Course Educational Objectives (CEOs):

1. Course will provide the knowledge on the various fashion design software.
2. Course will provide to understand and use different design software of Fashion garment& accessories.
3. Course will provide hand of practice on design software

## Course Outcomes (COs):

Students will be able to:

1. Understand the different types of design software .
2. Make different design on software.
3. Utilize available tools for making design .

## Course Contents:

### Unit I

Overviews of computer application on fashion design, introduction of advanced version of design software. Applications, features, and types, requirements of hardware, installation process and attachments. Information regarding software, study latest software system.

### Unit II

Introduction of textile printing, use and application. Significance of file menu, edit menu, draw a figured design on paper, view menu, color tools, filter, introduction of enhanced tools. Preparation of various designs by simulating on CAD.

### Unit III

About CorelDraw, using the menus, standard toolbar, property bar and dialog boxes, drawing rectangle, ellipses, polygons, stars, spirals and graph paper, Drawing lines of all shapes and size, creating and manipulating text selecting and transforming objects, shaping objects, Filling and outlining objects, viewing, zooming and ordering, combining.

  
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### Unit IV

About Photoshop, using toolbox, palettes and context menus, creating, operating and closing files, changing canvas size, color modes and resolutions, understanding and working with layers, selecting areas, picking and selecting colors, pattern creation with the rubber stamp, creating special images, practice block making on garment software, variant file, adjustment of different views of garment components, different techniques of pattern making, notches, curve etc.

### Unit V

Mood board, story board making bitmap pictures, different studios, different style for fashion garment, style creation, dress making, different tools for style, colour shade.

### References:

1. Men's wear pattern making, Alam Parwez Khan, Punkaj Pub. Delhi, 2007
2. CAD Manuals
3. CAD-Cam Principles and applications, Rao, TMH
4. Corel draw
5. Photoshop
6. Lectra manual

### List of Practical (Expand it if needed):

1. To study overview of Computer application on fashion
2. To study installation process with system confirmation
3. To study textile print software
4. To prepare design on textile printing software
5. To study corel draw with tools
6. To prepare design on corel draw
7. To study Photoshop with tools
8. To prepare design on photoshop
9. To study pattern making garment software
10. To study style creation software

  
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			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
BSFD404		APPAREL QUALITY CONTROL - I	0	0	0	0	50	0	1	2	2

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\***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. Course will provide knowledge about the basic concept of Apparel Quality Control.
2. Course will provide knowledge of quality procedure in apparel industry.
3. Course will provide knowledge of latest garment measurement system

## Course Outcomes (COs):

Students will be able to:

1. Understand the basic of Apparel Quality Control.
2. Apply their knowledge for quality procedure in apparel industries
3. Assess the quality of garment.

## Course Contents:

## References:

1. **Garment Technology for Fashion Designers**, Blackwell Science, 1997 - Gerry Cooklin
2. **Managing quality in the Apparel industry**-P.V. Mehta &, S.K. Bharadwaj
3. **Progress in Textile-science and technology Vol.I-Testing and quality management** –V.K. Kothari

## List of Practical (Expand it if needed):

1. To understand the process of apparel quality control
2. To study the different checking points of garment manufacturing.
3. To study different types of fabric defects
3. To study the various types of garment defects
4. To inspect the zipper, buttons and interlinings labels
5. To study inspection loop & AQL system
6. To study the role of thread tension on apparel
7. To study the effect of stitch type on seam strength
8. To study the effect of seam type on seam strength
9. To study the role of finishing in garment process
10. To study latest garment measurement system-KAWABATA

  
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BSFD405		FASHION ACCESSORY DESIGN - II	0	0	0	0	50	0	2	2	3

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## Course Educational Objectives (CEOs):

1. Match accessories according to dress.
2. Select or identify design.

## Course Outcomes (COs):

Students will be able to:

1. Design their own creation
2. Can organize different accessories
3. Plan their style or create their own brand

## Course Contents:

### References:

1. Jay Diamond, Ellen Diamond. Fashion Apparel and Accessories.
2. France Borel. The Splendor of Ethnic Jewelry. NJ Abram Inc, New York.
3. Mookherjee Ajit. 5000 Designs and Motifs from India. Dover Publications Inc., 1996.
4. Judith Rasband. Strategies for Women. Delmar Publishers London.
5. Mc Jimsey and Harriet. Art and Clothing Selection. Iowa State University Press, Iowa. Jacob Solinger. Apparel Manufacturers Handbook.

## List of Practical (Expand it if needed):

1. Introduction to accessory design: - various types of shoes.
2. Introduction to accessory design: - various types of handbags.
3. Introduction to accessory design: - various types of hats.
4. Introduction to accessory design: - various types of gloves.
5. Introduction to accessory design: - various types belts.
6. Collection of materials related to the accessories based on different themes: - Tribal, ethnic, contemporary, traditional, and fusion (file work with theory, picture sample).
7. Collection and presentation of materials related to the accessories based on different themes: - tribal, ethnic, contemporary, traditional, and fusion (file work with articles).
8. To create accessories from each theme (head dress, foot wears, handbags, jewelry, belts, gloves etc).

  
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