

Syllabus for
Bachelor of Science (Hon's) in
Fashion Design & Technology (FDT)

Duration: 4 years

Semester: 8

*Credits: **160** (Theory **84** & Practical **76**)*

Course Structure:

Total credits = **160** (Theory **84** & Practical **76**).

Duration: Four years (Eight semester of six months each)

Summary

Year & Semester	Total Credits	Theory (credits)	Practical (credits)
1 st Year: 1 st Semester	20	17	03
1 st Year: 2 nd Semester	24	16	08
2 nd Year: 3 rd Semester	23	07	16
2 nd Year: 4 th Semester	20	10	10
3 rd Year: 5 th Semester	20	12	08
3 rd Year: 6 th Semester	25	12	13
4 th Year: 7 th Semester	21	10	11
4 th Year: 8 th Semester	07		07
Total credits	160	84	76

Semester wise course offering for B. Sc (Hon's) in Fashion Design & Technology (FDT)

First Year: 1st semester

Course Code	Course Title	Credits	Remarks
510701	Introduction to Fashion & Apparel Industries	3	
510501	Textile Science: Fiber-Yarn - Fabric	3	
510702	Elements of design - Practical	3	
512801	Basic Science: Chemistry	3	
511501	History of the emergence of independent Bangladesh	3	
511101	English Foundation Course: Part-1	3	
510703	History of Fashion	2	
	Total	20	

First Year: 2nd Semester

Course Code	Course Title	Credits	Remarks
510511	Sewing Technology	2	
510512	Sewing Technology - Practical	1	
510513	Dyeing, Printing & Finishing for Apparel	3	
510514	Dyeing, Printing & Finishing for Apparel - Practical	1	
515312	Basic Applications of Computer- Practical	3	
512711	Basic Science: Physics	3	
512211	Introduction to Economics	3	
511111	English Foundation Course: Part-2	3	
510515	Clothing Materials & Techniques	2	
510516	Clothing Materials & Techniques - Practical	1	
510712	Basic draping – 1 - Practical	2	
	Total	24	

Second Year: Semester-3

Course Code	Course Title	Credits	Remarks
520525	Cutting Room Technology	2	
520526	Cutting Room Technology - Practical	1	
520528	Sewing & Construction Techniques - Practical	3	
520724	Variation of bottoms - Practical	3	
520726	Introduction to Fashion Design- Practical	3	
521121	English Composition	3	
523701	Basic Math	2	
520728	Fashion illustration -1 : - Practical	3	
520730	Color concept- Practical	2	
520532	Apparel Industry Visit- Practical	1	
	Total	23	

Second Year: Semester-4

Course Code	Course Title	Credits	Remarks
520543	Basic garments construction	2	
520544	Basic garments construction - Practical	2	
520742	Creative Design Analysis & Collection - Practical	2	
520744	Bodice & Variation - Practical	3	
520547	Apparel Production process & details	3	
523601	Introduction to statistics	2	
521131	Business communication	3	
520746	Fashion Illustration-2: - Practical	3	
	Total	20	

Third Year: Semester-5

Course Code	Course Title	Credits	Remarks
530563	Apparel Quality Control Management	3	
530565	Tools & Techniques of Merchandisers	2	
530622	Knitwear pattern drafting - Practical	2	
530567	Testing of textile	3	
530568	Testing of textile - Practical	1	
530569	International Trade & Transaction	2	
530571	Human Resource Management	2	
530756	Advanced pattern: Menswear - Practical	2	
530758	Computing for Designer: E-Fashion - Practical	3	
	Total	20	

Third Year: Semester-6

Course Code	Course Title	Credits	Remarks
530768	Surface Ornamentation & Decoration - Practical	3	
530770	Digital Fashion Illustration Techniques - Practical	3	
530581	Apparel Merchandising Management	3	
530609	Fully Fashioned Knitwear	3	
530583	Industrial Garments washing	3	
530772	Pattern grading - Practical	2	
530774	Fashion Marketing	3	
530776	Advanced pattern : Children's wear - Practical	3	
530778	Draping & evening Gowns - Practical	2	
	Total	25	

Fourth Year: Semester:-7

Course Code	Course Title	Credits	Remarks
540589	Sourcing & negotiation techniques	2	
540780	Product development & re-engineering - Practical	3	
540782	Garments CAD - Practical	3	
540784	Fashion Retailing & Visual Merchandising - Practical	3	
540591	ISO & Compliance	3	
540593	Consumer behavior	3	
540786	Advanced pattern : Lingerie - Practical	2	
540788	Aesthetics and Art	2	
	Total	21	

Fourth Year: semester-8

Course Code	Course Title	Credits	Remarks
540790	Fashion Forecasting & Trend Analysis - Practical	2	
540792	Design portfolio - Practical	3	
540794	Sustainable Design & Fashion- Practical	2	
	Total	7	

Details of Course Outline of Each Subject

Year -1, Semester-1

Paper Code	510701	Credits: 3	Class Hours: -- hrs.
Paper Title:	Introduction to Fashion & Apparel Industries		

Introduction to Ready Made Garment Industry: Historical evolution of Ready Made Garment Industry, The inception of RMG Ready Made Garment Industry in Bangladesh, Detailed idea on Garment and textile industries, Relationships between Garment and textile industries, Characteristics of global clothing business, Differences between tailoring & garment industry.

Style & Fashion: Definition of style & fashion, Difference between fashion & style, Fashion Cycle, Different stages of fashion cycle with appropriate graph, Length of fashion cycle, Purposes of wearing clothes.

Present Conditions of RMG Industry: The contribution of RMG industry in Bangladesh, Data on increase of factories, earning, and major apparel items exported from Bangladesh, percentage of woven & knit exports in terms of quantity and value for previous years.

Backward & Forward Linkage Industries: Definition of backward & forward linkage industries, List of backward linkage industries, Detailed discussion on different types of backward & forward linkage industries.

Departments in Ready Made Garment Industry: General working procedure of garment industry, Various departments in woven, cut and sew knit and fully fashioned knit factories, Definition, activities & structure of store, cutting, sewing, finishing, sample, merchandising, research and product development, CAD, quality control departments.

Detailing on Different Garments: A complete list of woven, cut and sew knit and fully fashioned knit items, Detailed discussion on commonly exported woven, cut and sew knit and fully fashioned knit items.

Global Apparel Markets: The large markets for Bangladeshi apparels, Key business factors for RMG industry. SWOT analysis for our RMG industry.

Others: BGMEA, Role of BGMEA to strengthen RMG sector, Missions and visions of BGMEA, Important terms for RMG industry, some necessary abbreviations and acronyms related to RMG industry.

Reference Books:

1. The Readymade Garment Industry of Bangladesh by Hafiz G.A. Siddiqi- published in 2004 by The University Press Limited.
2. An Introductory knowledge About Garments manufacturing Technology by Md. SaifulAzam, Md. Abu Saleh, Khondokar Abu Nafiz – published in July 2009 by Books Fair.

Paper Code	510501	Credits: 3	Class Hours: -- hrs.
Paper Title:	Textile Science: Fiber-Yarn- Fabric		

Introduction to textile science introduces the basic concepts of fiber, yarn and fabric to the apprentices such as properties and types of fiber and fabric used in apparel manufacturing.

Terms Definitions: Terms and Definitions of textile; Fiber, Natural fiber, Manmade fiber, Synthetic fiber, Staple fiber, Continuous filament, Bast fiber, leaf fiber, seed fiber.

Textile process cycle, Characteristics of textile fiber, Classification of textile fiber, Difference between natural and manmade fiber etc.

Cotton Fiber: producing countries of cotton fiber, Physical properties of cotton fiber, chemical properties of cotton fiber, Thermal and Biological properties of cotton fiber, micro structure and cross section of cotton fiber.

Wool fiber: Wool producing countries, Composition and characteristics of wool, Wool shearing, Physical properties of wool fiber, chemical properties of wool fiber, Thermal and Biological properties of wool fiber, micro structure and cross section of wool fiber, Classification of wool fiber, details about merino wool.

Silk fiber: Silk producing countries, Composition and characteristics of silk, Silk manufacturing process, Physical properties of silk fiber, chemical properties of silk fiber, Thermal and Biological properties of silk fiber, Classification of silk fiber.

Manmade fiber: Physical and chemical properties polyester, nylon and spandex fiber; Brand name of polyester, nylon and spandex fiber, end uses of polyester, nylon and spandex fiber, spandex fiber characteristics.

Yarn: Yarn, yarn twist, regularity and hairiness. Briefly manufacturing process of ring, rotor, carded and combed yarn; Yarn classification i.e. spun, filament, plied, cable, worsted and woolen yarn, difference between carded and combed yarn. Yarn count(Ne, Worsted, Nm, Tex and Denier count), measurement system. Problem solving of count, count conversion. Video presentation on yarn production of a spinning factory.

Fabric: Fabric, Classification of Fabric (woven, knit, non-woven, braid fabric), classification of woven fabric (plain, twill, satin), classification of knit fabric (single jersey, rib, interlock, purl fabric). GSM and oz/yd² of fabric, conversion from gsm to oz/yd².

Reference book:

1. EPG Gohl & L.D. Vilensky (1999), Textile Science, 2nd Edition, CBS Publishers & Distributors.
2. Understanding Textile for Merchandiser by Prof. Engr. Dr. Shah Alimuzzaman Belal
3. Bernard P. Corbman (1983), Textiles Fiber to Fabric, 6th Edition.

Paper Code	510702	Credits: 3	Class Hours: -- hrs.
Paper Title:	Elements of design – Practical		

The element design course deals with the theories & practicalities of visual design . basic principal of visual design & composition continue to be emphasized, clarified and experimented with. This course add an intense elaboration of design principles related to the practical application of the element of design, focusing on the interaction and relativity. Students will develop themselves through a series of projects like line composition, line & shape composition, color composition, motif making & arrangement, etc. students will learn how to arrange the aforementioned elements. The course involves a balance of lecture and discussion along with extensive exercises:

- Introduction to Color theory Characteristics, Properties of Color (Hue, Value, Light)
- **Design Process:** Balance, Rhythm proportion, Harmony, point, Line and Shape, Emphasis etc.
- **Practical:** Color exercise, Hue, color wheel, intermediate Hues (optional) values (Tint, pure Hue, Shade)
- **Texture** : Actual and Implied Visual Impression.
- Shape / volume, naturalism / abstraction/ non-objective.
- Make collage, collage using founding materials.
- Multiple perspective open form / closed form.
- Visual Impression-Selecting to create a mood board.
- Visual Presentation: Collecting different object and make mood board (4 Board)

The Faculty may readjust this plan during the semester if necessary

Text book:

1. Color by Edith Anderson Feisner (2nd Edition)
2. By - Sharon Lee Tate and Bill Glazer. The Snap Fashion Sketch Book - sketching and design the fast way 1995 Edition, Prentice Hall, Englewood Cliffs New jersey-07632.
3. By- Kathryn McKelvey Fashion Source Book. Blackwell Science, Gerry Cooklin- 1994

Paper Code	512801	Credits: 3	Class Hours: -- hrs.
Paper Title:	Basic Science: Chemistry		

Introduction to Chemistry: Atoms, Molecules, Ions, Symbol of elements, Molecular weight, Empirical formula, Molecular formula, Fundamental particles of atom, Bohr's atomic model, Atomic number, Mass number, Isotope, Modern periodic law and table, groups and periods of periodic table.

Acids and Bases: Modern theories of acids and bases (Arrhenius, Brønsted-Lowry and Lewis concept), amphoteric substance, conjugate acids and bases, neutralization reactions, Strength of acids and bases, salt, use of salt in dyeing process, hardness of water, pH, methods of measuring pH, calculation of pH, pH scale, Buffer solution, Indicators, bleaching agents: H₂O₂, H₂S, SO₂ etc.

Chemical Bonds: Valence electrons, Chemical bond, Types of chemical bonds: Ionic bond, Covalent bond, Sigma and pi bond, Co-ordination bond, polarity of covalent bonds, Hydrogen bond, intermolecular forces: Van-der Waal's forces and H-bond.

Introduction to Organic Chemistry: Definition of organic compounds, difference between inorganic and organic compounds, classification of organic compounds, Hydrocarbons and their classification, Aliphatic hydrocarbons: Alkanes, Alkenes, Alkynes; Aromatic hydrocarbon, Structure of benzene; Functional group of hydrocarbons, IUPAC nomenclature of organic compounds.

Soap and detergent: Definition of soap and detergent, classification of detergent, saponification, preparation of detergents, Cleansing action of soap and detergent, Limitations of soap and detergent, comparison between soap and detergent.

Chemistry of biomolecules: Definition of carbohydrate, Classification of carbohydrates, structure of glucose, fructose, starch and cellulose, difference between cellulose and starch. **Basic Concept of Polymers:** Definition of polymer and monomer, Repeating unit, degree of polymerization, calculation of degree of polymerization, Classification of Polymers, classification of copolymer, polymerization: addition and condensation polymerization, Plastics.

Color chemistry: Definition of color, dye and pigment, Difference between dye and pigment, classification of dyes according to chemical structure and application, preparation of Azo dyes, Nitro dyes.

Reference Books:

1. General Chemistry, By- Ebbing, Houghton Mifflin Company, New York.
2. Introduction to Modern Inorganic Chemistry, By- S. Z. Haider, Edexcel Publications, Dhaka, Bangladesh.
3. A Textbook of Organic Chemistry, By - B. S. Bahl and ArunBahl, , S. Chand & Company Ltd., New Delhi, India.
4. Carl H. Snyder: The Extraordinary Chemistry of Ordinary Things, Publisher: Jhon Wiley & Sons, Inc., New York, ISBN 0-471-31042-5.

Paper Code	511501	Credits: 3	Class Hours: -- hrs.
Paper Title:	History of the emergence of independent Bangladesh		

Introduction: Scope and description of the emergence of Independent Bangladesh.

Writing on this topic.

1. Description of the country and its people.

- a. Geographical features and their influence.
- b. Ethnic composition.
- c. Language.
- d. Cultural syncretism and religious tolerance.
- e. Distinctive identity of Bangladesh in the context of undivided Bangladesh.

2. Proposal for undivided sovereign Bengal and the partition of the Sub Continent, 1947.

- a. Rise of communalism under the colonial rule, Lahore Resolution 1940.
- b. The proposal of Suhrawardi and Sarat Bose for undivided Bengal : consequences
- c. The creation of Pakistan 1947.

3. Pakistan: Structure of the state and disparity.

- a. Central and provincial structure.
- b. Influence of Military and Civil bureaucracy.
- c. Economic, social and cultural disparity

4. Language Movement and quest for Bengali identity

- a. Misrule by Muslim League and Struggle for democratic politics.
- b. The Language Movement: context and phases.
- c. United front of Haque – Vasani – Suhrawardi: election of 1954, consequences.

5. Military rule: the regimes of Ayub Khan and Yahia Khan (1958-1971)

- a. Definition of military rules and its characteristics.
- b. Ayub Khan's rise to power and characteristics of his rule (Political repression, Basic democracy, Islamisation)
- c. Fall of Ayub Khan and Yahia Khan's rule (Abolition of one unit, universal suffrage, the Legal Framework Order)

6. Rise of nationalism and the Movement for self-determination.

- a. Resistance against cultural aggression and resurgence of Bengali culture.
- b. Sheikh Mujibur Rahman and the six point movement
- c. Reactions : Importance and significance
- d. The Agortola Case 1968.

7. The mass- upsurge of 1969 and 11 point movement: background, programme and significance.

8. Election of 1970 and the Declaration of Independence by Bangobondhu

- a. Election result and centres refusal to comply
- b. The non-co-operation movement, the 7th March , Address , Operation Searchlight
- c. Declaration of Independence by Bangobondhu and his arrest

9. The war of Liberation 1971

- a. Genocide, repression of women, refugees
- b. Formation of Bangladesh government and proclamation of Independence
- c. The spontaneous early resistance and subsequent organized resistance (MuktiFouz, MuktiBahini, guerillas and the frontal warfare)
- d. Publicity Campaign in the war of Liberation (Shadhin Bangla Betar Kendra, the Campaigns abroad and formation of public opinion)

- e. Contribution of students, women and the masses (Peoples war)
- f. The role of super powers and the Muslim states in the Liberation war.
- g. The Anti-liberation activities of the occupation army, the Peace Committee, Al-Badar, Al-Shams, Rajakars, pro Pakistan political parties and Pakistani Collaborators , killing of the intellectuals.
- h. Trial of Bangabondhu and reaction of the World Community.
- i. The contribution of India in the Liberation War
- j. Formation of joint command and the Victory
- k. The overall contribution of Bangabondhu in the Independence struggle.

10. The Bangabondhu Regime 1972-1975

- a. Homecoming
- b. Making of the constitution
- c. Reconstruction of the war ravaged country
- d. The murder of Bangabondhu and his family and the ideological turn-around.
- e.

Reference Books: 1) History of the Emergence of Independent Bangladesh, Professor Dr. Muntasir Mamun

2) History of the Emergence of Independent Bangladesh, Professor Md. Mozammel Haque

3) History of the Emergence of Independent Bangladesh, Md. A Salam, S M Nasir, Md. Nazrul Islam.

Paper Code	511101	Credits: 3	Class Hours: -- hrs.
Paper Title:	English Foundation Course: Part-1		

This is a foundation course designed to enable students to develop their competence in reading, writing, speaking and learning the rules of grammar. The course encourages students to acquire skills and strategies for using language appropriately and effectively in various situations.

▪ **Reading and understanding:**

Students are expected to read passages so that they might come across in their everyday life to understand different uses of language, guess word meaning in context, realize long sentences, recognize main ideas and supporting ideas, answer comprehension questions and write summaries.

Prescribed texts (Extracts may be taken from contemporary Journals, Editorial of newspapers, literary essays and online resources).

- **Grammatical Items:** Parts of speech; Prefix and suffix: changing words and using them in sentences; Different kinds of phrases: Modals; Modifiers; Articles; Tenses; Verbals: Gerund, Infinitive, participle; Question types; Subject-verb agreement and Right Forms of verb; Sentence and its classifications; Conditionals; Transformation of sentences; Punctuation & Capitalization and Degrees of comparison.

Reference Books:

1. Raymond Murphy, Intermediate English Grammar
2. A Practical English Grammar –By A.J.Thoms on A.V.Martnet
3. Learning English the easy way By, M.A. PHD Sadruddn Ahmed.
4. High School English Grammar and composition by Wren & Martin,
5. Friends' Language (Grammar Reading Comprehension: writing composition.)
By Prof. Md. Ataul Haque
Prof.Jahurul Islam
Dr. Binoy Barman.
6. A Text Book of Higher English grammar Composition & Translation.
By, P.K.De Sarkar, M.A

Paper Code	510703	Credits: 3	Class Hours: -- hrs.
Paper Title:	History of Fashion		

- Short history of different Civilizations, History of European Civilization.
- **Classic Period:** Regency Style, Victorian Style, Edwardian Style, Georgian Style.
- **Fashion Period:** Early Twentieth Century (1900s-1910s), Golden age of French Fashion (1920s-1930s), Mid-twentieth Century (1940s-1970s), Late Twentieth Century (1980s-1990s).
- **History of the Handloom Industry of Bangladesh:** History of Muslin, Dhakai Jamdani, Tangail Taant, Mirpur Benarashi & Katan, Rajsahi Silk, Khaddi of Comilla.
- Festival & Traditional Clothing of Bangladesh.
- Crafts & jewelries of Bangladesh, Nakshi Kantha.
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Book Reference:

- 20th Century Fashion
- By- James Laver. COSTUME & FASHION. Revised expanded and updated Edition. Thames and Hudson Ltd. London 1995.
- What people wore when.
(A complete Illustrated history of costume from ancient times to the nineteenth century)

Consultant editor Melissa Leventon
- By- Georgia O'Hara Callan. The Thames & Hudson Dictionary of Fashion and Fashion Designers. Thames and Hudson World of Art. London 1996
- By- Phyllis Torloro & Keith Eubank. Survey of Historic Costume. Second Edition. 1994. Fairchild Publications. New York.

Year -1, Semester-2

Paper Code	510511	Credits: 2	Class Hours: -- hrs.
Paper Title:	Sewing Technology		

History of Sewing Machines: History and Development of the Sewing Machines, Organogram of sewing Department of a Garments Industry.

Different Types of Sewing Machines as per Stitch Classes: Overview of stitch Classes, Overview of sewing machines types, Different types of sewing machine name under stitch classes (100, 200, 300, 400, 500, 600).

The Basic Parts of Sewing Machines: Introduce of basic parts of a sewing machine; Details description with pictorial representation.

Stitch and Stitch Classifications as per ISO Standard: Definition: Stitch, interlooping, intralooping, interlacing, passing through. Classifications of stitch, differences between chain stitch & lock stitch.

Stitch Formation: Recognize all types of stitches: needle threads and looper / bobbin threads in a stitch, stitch formation types, uses of different stitches in a garment, SPI (stitch per inch), Multimedia and pictorial representation of all types of Principle of stitch formations

Different Types of Sewing Machine Beds: Definitions & classifications, Features of machine beds, Applications/uses for different types of sewing Machine Beds

Work Aids of Sewing Machines: Definition, Objectives; Types of work aids; Applications with examples.

Different types of Sewing Machine Needles: Definition & Functions; Needle movement; Basic parts; Uses of shank, should, short groove, long groove, butt etc; Needle eye & Bulged eye, Needle size & selection.

Seam & Classification of Seam: Definition of seam, Classifications/types of seam, criteria of seam formation with figure and Uses/applications of various seams.

Different Feed Mechanism of Industrial Sewing Machine: Different Parts of Feed Mechanism; Types of Feed Mechanism.

Sewing Problems: Problems of Stitch Formation: slipped stitch, Staggered stitch, Unbalanced stitch etc.; Seam Puckers; Remedies of all sewing problems.

Alternative Techniques of Joining Materials: Definition, Limitations, types; Welding and Adhesives as alternative methods, difference between these types; Principle of ultrasonic welding.

Reference Books:

1. The Technology of Clothing Manufacturing, Harold Carr & Barbara Laham
2. Introduction to Clothing Manufacturing, Gerry Cookline & Blackwell Science
3. Stitch & Seams, R. Laing & J. Webster
4. Garments & Technology, M. A. Kashem

Paper Code	510512	Credits: 1	Class Hours: -- hrs.
Paper Title:	Sewing Technology - Practical		

Experiment – 1: Basic exercise- Sewing practice on paper.

Experiment – 2: Identification of all types of stitch samples : Identify needle threads, looper threads / bobbin threads of all stitches, counting & setting SPI ,

Project-1: Students must have to complete their task as per class schedule & take necessary notes & required to submit a report on “Basic exercise- Sewing practice on paper”. Report will be submitted in a file.

Project-2: Students have to collect all types of stitch samples with details. The students will be required to submit a presentation based on individual assignment on various types of stitch samples. Assignment will be submitted in a file. Students will face a viva in the submission date.

Paper Code	510513	Credits: 3	Class Hours: -- hrs.
Paper Title:	Dyeing, Printing & Finishing for Apparel		

Introduction: Water for textile operations (dye house standard); Water Hardness; Problems associated with the use of hard water in textile operations; Process flow chart of textile dyeing operation. Water, soap, detergent, salt, alkali , acid, oxidizing and reducing agents

Pretreatment: Singeing, Singeing Machine, Detail on gas singeing machine. De-sizing, Desizing agent, Enzymatic de-sizing process Scouring of textile materials, process of scouring operation & souring Bleaching of textile materials, Bleaching agents, method of bleaching operation. Mercerizing of textile materials, Mercerizing process parameters, and yarn and fabric mercerization process.

Dyeing: Dyes, pigments and chemicals used in dyeing operation, Short description of all types dyes. Reactive dyes and their application, Stripping process Disperse dyes and their application. Removal of excess water and drying of textile materials.

Printing: Introduction & process flow chart of textile printing operation, printing ingredients & their functions. Printing styles & different methods of textile printing. Block Screen, Roller, pigment, Flock, Burn-out printing on textiles. Fixation and after treatment processes for printed goods. Pigment printing and their application

Finishing: Introduction to finishing , types, machines and objects; Calendaring ; Compacting; Stentering, Slitting, Sanforising, Raising, Embossing, Mercerising etc.

Reference Books: 1.Textile preparation and dyeing By A. K. Roy Choudhury.

2.Technology of textile processing, Volume IV (Printing) By V. A. Shenai.

3.Chemistry and technology of fabric preparation and finishing By Charles Tomasino

Paper Code	510514	Credits: 1	Class Hours: -- hrs.
Paper Title:	Dyeing, Printing & Finishing for Apparel - Practical		

- Experiment – 1: Introduction to Dyeing, Printing & finishing (lab).
 Experiment – 2: Recipe calculation for dyeing lab.
 Experiment – 3: Desizing of cotton woven fabric.
 Experiment – 4: Scouring of cotton knit fabric.
 Experiment – 5: Bleaching cotton knit fabric.
 Experiment – 6: Scouring & bleaching of grey mélangé fabric at single stage.
 Experiment – 7: Whitening of grey mélangé fabric with optical brightening agent. Experiment – 8: Dyeing of cotton fabric with direct dye (self shade).
 Experiment – 9: Dyeing of cotton fabric with reactive dye (self shade).
 Experiment – 10: Dyeing of polyester/ blended fabric with disperse dye (combined shade). Experiment – 11: Block printing with pigment.
 Experiment – 12: Screen printing with reactive dye.

Reference Books 1.Practice of textile coloration. By Md. ForhadHossain

Paper Code	515312	Credits: 3	Class Hours: -- hrs.
Paper Title:	Basic Applications of Computer- Practical		

Introduction : Basic Studying of Computers, History and development of Computers, Generation of Computers, Types of Computers.

Identification of Computer Hardware and Peripherals: Basic Units of Computer Hardware, Keyboard, Mouse, Internal structure of CPU, Functions of RAM, ROM and Cache memory, Basic functional mechanism of HDD and CD-ROM, Different types of Monitors, Impact and Non-impact Printers, Scanner, Plotter, Typical Computer specifications.

Demonstrate Software: Classifications, System software, Operating system concepts and importance, Windows operating system, **Application software:** Microsoft Word; Microsoft Excel; Microsoft Powerpoint.

Text books:

1. Peter Norton's-Introduction to Computers Fifth Edition, Computing Fundamentals, Student Edition by Peter Norton
2. Pradeep k. Sinha-Computer fundamentals - 6th Edition

Paper Code	512711	Credits: 3	Class Hours: -- hrs.
Paper Title:	Basic Science: Physics		

Physics-Introduction: Definition of Physics, Concepts, Laws and Theories of Physics, Important laws of Physics, Branches of Physics, Physical quantities.

Measurement and Units: Measurement, Units, Measurement of physical quantities, Measurement systems, The SI units, Unit notations, Mathematical problems.

Scalars & Vectors: Definition of scalar and vector quantities, Difference between scalar and vector quantities, Addition, subtraction and multiplication of scalar and vector quantities systems, Related examples and mathematical problems.

Force & Motion: Definition of Force, Some particular forces, Gravitational force and weight. Definition and difference between distance and displacement, Definition and difference between speed and velocity, Acceleration and retardation, Equation of motion, Newton's laws of motion, Related mathematical problems.

Heat & Temperature: Difference between heat and temperature, Measuring temperature in different scales and the relation between them, Conversion of temperature from one scale to another, The SI unit of temperature, Absolute scale of temperature, Heats of transformation: Boiling and melting point of different materials, Heat transfer, Conduction, convection and radiation mechanisms in heat transfer, Good and bad conductor of heat, Examples of heat transfer and conductors in our daily life, Related mathematical problems.

States of Matter: Four states of matter: solid, liquid, gas and Plasma, Reasons behind the state of matter, Calculation of length, area and volume of a substance, Density of a matter, Comparison of density among solid, liquid and gas, Related mathematical problems.

Optics: Nature of light, Speed of light, Different types of light sources, Theories of light, Reflection and refraction of light, Laws of reflection and refraction, Total internal reflection (TIR), Application of TIR in medical technology, fiber optics communications and in jewelries. Interference of Light, Dispersion of light, Demonstration of dispersion of light by glass prism, Colors of the rainbow in the sky, reasons for the usual blue sky and red sky during sun setting.

Electricity: Static electricity, Electric charge, Properties of Electric charges (positive and negative charges), Charging different materials like silk, wool, glass rod etc, Coulomb's law, Electric field, Potential difference, Ohm's Law, Current, A.C. and D.C. Current, Uses of electricity in our everyday life.

Magnetism: Magnetism, Origin of magnetism, Magnetic materials, Classification of Magnetic materials & their properties, Magnetic Field intensity, Permeability, Susceptibility, Magnetization Curve.

Mechanical Properties of matter: Elastic and Plastic bodies, Stress, Strain, Elastic Limit, Hooke's Law, Elastic constants, Experimental determinations of Young's Modulus, Twisting of a cylinder, Torsion pendulum, Poisson's Ratio, Limits of Poisson's Ratio, Compressibility, Relation between elastic constants, Energy in a strained body, Variation of elasticity with temperature, Related mathematical problems.

Reference Books:

1. Elements of Properties of Matter: D. S. Mathur
2. Properties of Matter: BrijlalSubrahmanyam
3. A text book of Optics: BrijlalSubrahmanyam
4. Physics-I: David Halliday& Robert Resnick

Paper Code	512211	Credits: 3	Class Hours: -- hrs.
Paper Title:	Introduction to Economics		

Chapter 1: General Discussion: Economics, Efficiency and PPF; and Economy

Chapter 2: Demand, Supply, and Equilibrium, Elasticity and Application

Chapter 3: Production and Cost

Chapter 4: Concept of Profit Maximization

Chapter 5: Idea of different types of Market: Perfect Market, Monopoly, Oligopoly and Monopolistic; Demand for Inputs and Input Market.

Chapter 6: Basic Macroeconomic Concepts: GDP, GNP, CPI, Inflation, Unemployment

Chapter 7: Aggregate Expenditure, Money, Banking, and Prices

Chapter 8: Monetary Policy and Fiscal policy

Reference Books:

1. Managerial Economics in Global Economy; (7th edition) by Dominick Salvatore
2. Macroeconomics; by Michael Parkin. Addison-Wesley Publishing
3. Managerial Economics: Theory, Applications, and Cases; by W. Bruce Allen, Neil Doherty, Kieth Weigelt, Edwin Mansfield

Paper Code	511111	Credits: 3	Class Hours: -- hrs.
Paper Title:	English Foundation Course: Part-2		

This course aims at developing students' verbal communication skills at an advanced level. It can fathom their ability to speak or listen. It focuses on exercises on listening to native speakers, strategies of public speaking and practice of public speaking with emphasis on correct pronunciation. Students will participate in discussions, give oral presentations, learn pronunciation skills. Participatory and activity based approach would be followed in acquiring the basic skills using different teaching aids, such as video, audio cassettes and CD. This course also deals with grammatical structures, stylistic strategies, vocabulary and speaking through cue-cards.

- **Advanced Grammatical Items:** Basic sentence structures; Clauses; Completing sentences; Combination of sentences, Notions and Functions; Corrections and Translation from Bangali to English.
- **Speaking skill:** Speaking skill practice through cue-cards; Conversation on a wide variety of topics; Delivering extempore speech: Public Speaking or presentation.
- **Listening Skill:** listening to meetings, speeches, presentation, video, audio cassettes and CD.
- **Phonetics :** Learning correct pronunciation of words.
- **Extensive Reading:** According to the book of “Friends’ Language (Grammar Reading Comprehension: writing composition.)
By Prof. Md. Ataul Haque, Prof.Jahurul Islam, Dr. Binoy Barman

Reference Books:

1. P. Strevens. Spoken Language
2. G.A. Miller Language and Communication
3. Conversational English for Every day Situations.
By Dr. Ahsanul Haque
M. Shahedul Haque.
4. Ship or Sheep (Cambridge)

By-Ann Baker, Leslie Marshall, Syed sirajul Islam
5. Practical Phonetics
By Yeasir Ahmed Milan
A.M.M Hamidur Rahman
S.M. Zakir Hossain
6. Word Treasure
By Deb Kumar Chatterjee
7. Friends’ Language (Grammar Reading Comprehension: writing composition.)
By Prof. Md. Ataul Haque
Prof.Jahurul Islam
Dr. Binoy Barman

Paper Code	510515	Credits: 2	Class Hours: -- hrs.
Paper Title:	Clothing Materials & Techniques		

Introduction to Clothing & Clothing Materials: Definition of clothing, purposes of wearing clothes, classification of clothing materials, definition of clothing materials, detailed lists of different types of clothing materials.

Fabrics: Definition of fabrics, classification & identification of fabrics, Qualities & defects of fabrics, presentation of woven & knit fabric samples.

Sewing Thread: Definition of sewing thread, importance, differences between yarn & sewing thread, related terms of sewing thread, detailed classification with description, thread finishing, sewing thread numbering, special sewing thread, thread packages.

Button: Definition of button, function & classification of buttons, button measurement, components part of snap button & shank button, rivet, quality parameters of button.

Zipper: Definition of zipper, functions & classification of zipper, component details of zipper, zipper measurement, types of sliders & pullers, testing of zipper.

Interlining & Lining: Definition of Interlining, function, details classification with description and differences, fusing methods, quality control parameters of fusing, fusing defects, lining and its functions, differences between lining & interlining.

Labels & Motifs: Definition of label, classification with detailed discussion, information that label contains, care label symbols, integrated label, labeling style, label attachment, motif and its functions, differences between label & motif.

Other Trims: Definition, function and identification: Appliqué, draw cord, draw string, piping cord, stopper, toggle, eyelet/grommet, sequin, rhinestone, bow, strap, buckle/clasp, washer, ribbon, Elastic, Velcro, hook & eye, shoulder pad, ring slider, d-ring, bead, lace.

Carton & Poly: Definition of carton, functions, classification, paper, ply, poly bag definition, functions, classification, thickness of poly.

Hang tag & Hanger: Definition of hang tag, functions, information that hangtag contains, barcode, hanging methods, sample tag, information that sample tag contains, hanger definition, functions, classification, materials for hanger.

Other Accessories: Definition, function and identification: Different types of clips lock pin, safety pin, collar insert, collar stay, neck board, back board, waist tag, attention tag, eco-safe tag, 2/3 pc tag, tissue paper, wax paper, gum tape, scotch tape, PP belt, security tape.

Reference Books 1. Technology of Clothing Manufacture revised by David J. Tyler

2. Garments Manufacturing Technology by SaifulAzam

3. Garments Technology by M.A Kashem

Paper Code	510516	Credits: 1	Class Hours: -- hrs.
Paper Title:	Clothing Materials & Techniques – Practical		

Experiment: Identification of all types of Clothing Materials.

Project: Students have to collect all types of Clothing Materials with details. The students will be required to submit a presentation based on group assignment (maximum five students in a group) on various types of Clothing Materials. Assignment will be submitted in a file. Students will face a viva in the submission date.

Paper Code	510712	Credits: 2	Class Hours: -- hrs.
Paper Title:	Basic Draping – 1 - Practical		

- Introduction to Demonstrate Knowledge of Basic Draping.
- Demonstrate front/back, Basic skirt with Dirt
- Demonstrate waistband front and back
- Demonstrate Front and Back bodice with shoulder and waist dirt
- Demonstrate flare skirt, Strait grain at side seam with waist line/without waist line,
- Demonstrate how to sewing from draping.
- Demonstrate transposing techniques from Muslim samples to pattern paper.
- Demonstrate neck line /yoked /peter pan collar.
- Demonstrate Basic pant: Front and Back
- Demonstrate Transposing technique from muslim sample to pattern Paper (Pant)
- Demonstrate drape original muslin garment from design sketch
- Demonstrate Evening dress/dress/Line dress.

Text Book:

1. The Art of Fashion Draping (Third edition)
Connie Amaden_Crawford

Year -2, Semester-3

Paper Code	520525	Credits: 2	Class Hours: -- hrs.
Paper Title:	Cutting Room Technology		

1.Introduction to Cutting Room in Garment Industry: Introduction To Cutting Room In Garment Industry; What Is Clothing & Cutting ? Importance Of Cutting Room; Functional Chart Or Organ Gram; Process Flow Of Cutting Room; Responsibility Of Cutting Personnel.

2.Production Process in the cutting room: Production Process In The Cutting Room; Planning; Spreading; Cutting; Different Tools And Equipment; Preparation For Sewing; Position Marking; Shade Marking; Bundle Preparation; Bundle Tickets.

3.Basic Concept on Pattern, Pattern Information and Symbols: Definition Of Pattern; Objectives Of Pattern Making; Pattern Grain Line; Pattern Information and Symbols.

4.Marker: Define Marker, Types of marker, Marker Making; Traditional Vs. Modern Methods , Marker Efficiency calculation(Manual).

5.Spreading: Fabric spreading, Objects Fabric spreading, Method of fabric spreading, Techniques of Spreading.

6. Cutting: Cutting; Fabric Inspection & Bulk Fabric Cutting Procedure; Different Cutting Techniques & Wastages Control; Hand Shears; The Short Knife; Electric Powered Cutting

Machines ;The Straight Knife Or “Up And Down”; The Round Knife ; Die Cutting ;Band Knife ; Auxiliary Devices; Notchers; Cloth Drills; Inside Slasher: Various Types Of Cutting Machines; Advanced Cutting Systems; Different Cutting Mistakes & Their Solution;

7. Cut Order Plan preparation: Cut Order Planning; Introduction; Sewing Schedule; Cutting Schedule; Fabric Delivery Schedule; Economic Cut Quantities calculation .

8. Quality control in cutting section

9. Some Common Terms And Definitions: Numbering, Sorting and Bundling Procedure.

Reference Books:

1. Technology of Clothing Manufacture by Carr & Latham
2. Garments Manufacturing Technology by SaifulAzam
3. Spreading and Cutting of Apparel Products by P. Lakshmanakanth
4. Industrial Cutting of Textile Materials, 1st Edition by Vilumsone-Neme

Paper Code	520526	Credits: 1	Class Hours: -- hrs.
Paper Title:	Cutting Room Technology - Practical		

Experiment – 1: Identification of all parts and points of a cutting machine (straight knife m/c).

Experiment– 2: Basic exercise- Cutting practice by using paper (straight knife m/c).

Experiment – 3: Making a marker (manually) by using different pattern block.

Experiment – 4: Fabric spreading & Marker placement, Fabric Cutting practice by straight knife m/c.

Reference Books:

5. Technology of Clothing Manufacture by Carr & Latham
6. Garments Manufacturing Technology by SaifulAzam
7. Spreading and Cutting of Apparel Products by P. Lakshmanakanth
8. Industrial Cutting of Textile Materials, 1st Edition by Vilumsone-Neme

Paper Code	520528	Credits: 3	Class Hours: --hrs.
Paper Title:	Sewing & Construction Techniques – Practical		

Experiment – 1: Threading , bobbin thread winding, bobbin setting in sewing machine.

Experiment – 2: Basic exercise of special type sewing machine (Flat lock, kansai, Feed of the arm, over lock, button hole, button attach etc)

Experiment – 3: Basic exercise- Sewing practice on fabric (stitching straight, zigzag & curve line sample on fabric).

Experiment – 4: Construction of different types of seam .

Experiment – 5: Construction of different parts of garments

Paper Code	520724	Credits: 3	Class Hours: --hrs.
Paper Title:	Variation of bottoms - Practical		

Introduction to Pattern Making:

Introduction to pattern making (draping & drafting), introduction to block.

Introduction to pattern making tools & terminologies used in pattern making.

Fundamentals of pattern drafting- fabric terms; pattern & fabric grain line; basic pattern set; seamless working patterns; completing the pattern.

Measuring the form (horizontal & vertical measurements). Introduction to standard measurement chart.

Trouser:

Introduction & analysis of the trouser foundations.

Measurement required for a trouser draft.

Trouser terminology.

Leg relation of a trouser.

Basic Trouser Block:

Drafting of the basic trouser block in full scale.

Drafting the straight & curved waistband & utility of it in trouser block.

Toile making of the basic trouser block with waistband.

Test fit & required pattern adaptation.

Trouser Variations:

High – Waist trouser & Low – Waist trouser, Capri, Shorts & Hot pants, Drafting of Hipster, Trouser with gathers pleats and flares, Baggy Pant.

Basic Jeans Block:

Basic difference between trouser & jeans, drafting of a denim block.

Toile making & test fittings of a denim block with yoke, pockets & waistband.

Basic Skirt Draft:

Drafting of a basic skirt pattern in full scale, basic waist band.

Making up a calico toile of the basic skirt block, test fittings.

Skirt Variations (Students have to make all toile):

Skirt variations – different types of darts, Basic flared skirt, Added flared skirt (on paper) , Low-waist skirt, High-waist skirt, Circular skirts & Circular skirts with handkerchief hem.

Adaptation of the Bodice Block:

One piece-dress block, Torso foundation ,Princess-line foundation, Panel dress foundation, Empire foundation.

Reference Books:

1. Pattern making for Fashion Design — Helen Joseph Armstrong.
2. Aldrich W- Metric Pattern Cutting –Blackwell.
3. Aldrich W- Metric Pattern Cutting for Menswear –Blackwell.

Paper Code	520726	Credits: 3	Class Hours: -- hrs.
Paper Title:	Introduction to Fashion Design- Practical		

This inspirational and practical fashion design course will immerse you in the world of the fashion designer and will help you understand how they undertake the fashion design process. We will introduce you to the principles of fashion design and fashion drawing and show you how to develop your ideas from extensive research.

The course includes: Experimental fashion design analysis, Primary and secondary design research, Refining design ideas for your chosen market, Creating mood boards for color selection, color board, look board Fabric awareness, make mock collection based on inspiration board, Exploring different media.

Reference Books:

- By Celia Joicey and Celia Joicey How to Draw Like a Fashion Designer.
- By Jacky Bahbout and Cynthia Merhej My Fashion Lookbook: Design Your Own Collection.
- By Steven Faerm USA Design Your Fashion Portfolio.
- By Mark Atkinson UK. How to Create Your Final Collection
- By Anette Fischer UK. Basics Fashion Design 03: Construction

Paper Code	521121	Credits: 3	Class Hours: -- hrs.
Paper Title:	English Composition		

Objectives : This part of foundation course focuses on writing paragraphs and compositions. It is designed to enable students to develop their creative writing skills. This writing skill will be integrated to encourage better language use for free hand writing.

Contents:

- **Paraphrasing**
- **Summarising**
- **Organizing a paragraph:** topic sentence, detailed sentences, logical order and conclusions, paragraph writing focusing on the characteristics of pattering, cohesion, coherence and unity in the paragraph, paragraph analysis, development, outlining
- **Writing paragraphs following different models of writing:** definition, description, classification, cause and effect, comparison and contrast
- **Prewriting strategies:** free-writing, brainstorming, mind mapping/ clustering, narrowing the focus etc.
- **Writing with specific purpose and for specific audience**
- **Writing effective thesis statements**
- **Organizing/ structuring the essay :** outlining, writing appropriate introductions, supporting details and conclusions
- **Writing the first draft**
- **Revising and editing**
- **Writing the final draft**
- **Writing different types of essays : narrative /descriptive, exploratory, argumentative**

Reference book:

1. From Paragraph to Essay
Maurice Imhoof & Herman Hudson
2. Essays on Writing
By-Elizabeth & Heater clark

Paper Code	523701	Credits: 2	Class Hours: -- hrs.
Paper Title:	Basic Math		

Linear Equations & Inequality, Quadratic Equations: Introduction, Equation, Identity, linear simultaneous equations with two variables, Linear inequality, Introduction, Quadratic Equations, solutions of a general quadratic equation, Relationship between roots and coefficients of a quadratic equations, Nature of the roots of a quadratic equation, Formation of quadratic equation with given roots, Curve sketching of different line and non-linear equations, Business applications.

Function: Introduction, Definition of function, Domain, Range, Finding domain and range of a function, Sketch various types of function, Vertical line test, Even function, Odd function, Absolute function, Composite function, Business applications.

Differentiation: Introduction, Some Standard derivatives, Increasing and decreasing function, Determination of maxima and minima of different functions using differentiation rules, Conditions for the profit maximization, Marginal concept analysis.

Matrix: Introduction, Determinants, Cramer's Rule, Algebra of Matrices, Adjoint of a square matrix, Inverse of square matrix, Solution of simultaneous linear equations, Business application to matrices.

Introduction to Geometric Math: Introduction, Abscissa and ordinate of point, Rectangular coordinates, Distance between two points, straight line, slope, Intercept, Equation of cost line, Volume & Surface area related math of different shapes, Business application (RMG).

Mathematics of Finance: Cost price (CP), Selling Price (SP), Profit or Gain & Loss, Profit, Loss and Discount related problem solutions, Interest, Simple Interest, Compound Interest, effective and nominal rates of interest.

Reference Books

1. Calculus and Analytic : George B.Thomas, Jr Ross L.Finney
2. Business Mathematics: Dr. Md. Rafiqul Islam, Mohammad Osman Gani
3. Linear Algebra : Professor AbdurRahman.

Paper Code	520728	Credits: 3	Class Hours: --
Paper Title:	Fashion illustration -1 :- Practical		

This is completely a practical drawing based subject; to developed drawing skills and help them to express/illustrate their creative Ideas on paper medium.

Introduction to the Drawing: drawing practice, Shading- Light & Shade, Introduction to the different media of drawing: Paper, pencil, pen, color.

Human Figure Drawing: Drawing technique of 8-head Female-figure: from different view:- Front/Side/Back, In detail of Face/Hands/lags. Different types of hair-style drawing, Garment Flat-sketch drawing technique, Garment Drawing on Model Figure .

Technical Drawing: Flat sketches of garment, and garment details, Fashion Accessories drawing and design.

Book Reference:

- By- Patrick john Irelan. INTRODUCTION TO FASHIONDESIGN
BT. Batsford Limited. London. 1996.
- By- BinaAbling. Fashion Institute of Technology. Parsons School of Design
Fashion Sketch Book. Fourth Edition. Fairchild Publications. New York.

Paper Code	520730	Credits: 2	Class Hours: -- hrs.
Paper Title:	Color Concept - Practical		

The primary objective of this course is to make the students understand about the color & its theory. By the end of the course students will be able to make different color scheme. Students will be able to create different color combination for different activities.

- Introduction and Importance of Color theory.
- Basic Color wheel & chart introduction (Hue, Secondary, Tertiary).
- Color Temperature scheme.
- Neutral color Scheme.
- Value & Intensity (Tint, Shade & Tone)
- Color Characteristics, Color Personality, Color Symbolism.
- Appearance of Surface Color Composition.
- Inspiration and guidance for color combination.
- Fabric swatch composition.(Rendering)

Text book:

1. Color by Edith anderson feisner (2nd Edition)

Paper Code	520532	Credits: 1	Class Hours: -- hrs.
Paper Title:	Apparel Industry Visit- Practical		

Before Visit the factory the students will be provided the understanding about the nature, scope and function of the textile and Garments factory. A general flow chart of the factory would be presented and after that students will be taken to factories, at least two types of factories. The purpose of visit is to provide the students the practical knowledge about how textile and garments factories function and how different department works, the machineries used and its function, the students will be taken to relevant factories. All factory visits will the preceded and followed by multimedia presentation on the type of factories the students will visit. After the visit, students will be required to submit a report on visit.

Year -2: Semester-4

Paper Code	520543	Credits: 2	Class Hours: -- hrs.
Paper Title:	Basic garments construction		

Introduce with the sewing room management: Introduce to sewing room management, activities, tools and equipments of sewing room of clothing industries.

Details of the bulk productions process of sewing room: Basic concept of bulk production, different steps of bulk production, bulk production procedure & advantages of bulk production

Different types of industrial sewing machines: Introduce with the different types sewing machines such as machines of stitch class-100, 200, 300, 400, 500 & 600 classes which are very common used in the industry. Machines features, identification of machine etc.

Common applications of industrial sewing machines: Selection of industrial sewing machines for the different process of garments considering garment materials and seam standard. Will be discussed very common sewing machines from stitch class-100, 200, 300, 400, 500 & 600 classes

Basic garment analysis: Basic concept of garment analysis & process analysis, Analysis of following garments theoretically and practically -Men's and ladies long sleeve and short woven shirt, t- shirt & polo shirt. Basic trouser.

Process breakdown of followings garments: : Basic concept of Process breakdown, Purpose of Process Breakdown Operational breakdown as per construction sequences as following garments; - Men's shirt, t-shirt & polo shirt. Basic trouser.

Process flow chart of basic garment: Basic concept of process flow chart drawing, preparation rules of flow chart and flow chart preparation as per the construction sequence of; woven shirt, t- shirt. & polo Shirt, basic trouser.

Reference Books :

1. HanneloreEberle - Clothing Technology from fibre to fashion.
2. Carr H & Latham B– The Technology of Clothing Manufacture – Blackwell Science 1994.
3. Cooklin G – Introduction to Clothing Manufacture – Blackwell Science 1991.
4. Apparel Manufacturing Hand Book –Jacob Solinger.

Paper Code	520544	Credits: 2	Class Hours: -- hrs.
Paper Title:	Basic garments construction - Practical		

List of experiments

Constructing a T-shirt: Analysis construction of basic T- shirt sample, Fabric cutting; Stitching shoulder seams , Stitching neck band; Attaching sleeves with body parts ; Finishing side seams; Stitching hemline; Finishing and pressing.

Constructing a Polo-shirt: Analysis construction of polo-shirt sample ,Fabric cutting; Stitching button stand/ front opening; Stitching shoulder seams ; Attaching sleeves with body parts , Finishing side seams, Attaching collar, Preparing cuffs, Attaching cuffs , Stitching hemline, Finishing and pressing.

Constructing a shirt: Analysis construction of basic shirt sample, Fabric cutting, Marking pocket position; Joining yoke with back body part, Stitching button stand, Attaching front pocket; Stitching shoulder seams, Applying interlining to the top collar and top stand, Stitching the top collar to the under collar and join collar with the stand, Preparing, and stitching sleeve placket ; Attaching sleeves with body parts , Finishing side seams, Attaching collar, Preparing cuffs, Attaching cuffs , Stitching hemline, Finishing and pressing.

Reference Books :

1. HanneloreEberle - Clothing Technology from fibre to fashion.
2. Carr H & Latham B– The Technology of Clothing Manufacture – Blackwell Science 1994.
3. Cooklin G – Introduction to Clothing Manufacture – Blackwell Science 1991.
4. Apparel Manufacturing Hand Book –Jacob Solinger.

Paper Code	520742	Credits: 2	Class Hours: -- hrs.
Paper Title:	Creative Design Analysis & Collection - Practical		

This subject is highly improvement of students Quality and creativity. This is the foundation of design Analysis & Design Development. In this course the students will learn how to analysis & create / develop design using the techniques of elements of design. Not only that, students will study and research the different style aspects. Using their creativity they will do the problem solving with the emphasis on elements & principles. Explore & develop source of inspiration and translate them into creative design solution. Stress the extension and elaboration of ideas within a specific market.

Reference Books:

- By Celia Joicey and Celia Joicey.How to Draw Like a Fashion Designer
- By Jacky Bahbout and Cynthia Merhej.My Fashion Look book: Design Your Own Collection
- By Steven FaermUSA.Design Your Fashion Portfolio
- By Mark Atkinson UK.How to Create Your Final Collection
- By Anette Fischer UK.Basics Fashion Design 03: Construction

Paper Code	520744	Credits: 3	Class Hours: -- hrs.
Paper Title:	Bodice & Variation – Practical		

Theory of pattern making: Introduction to Pattern papers and pattern making tools, Body shape and muscle movement Necessity of fit, comfort and ease in a pattern, Introduction to Block , 2d and 3d pattern Measurement details (Horizontal & Vertical) ,Introduction to the dress form & it’s different parts ,Measurement details (on dress form & Live) , Introduction to Standard Measurement Chart.

Basic Bodice Block: Basic Bodice Block, Marking, cutting & Making calico Toile , Fit on and correction of the calico toile , Pattern adaptation of Basic Bodice Block.

Chapter- 3: Basic Sleeve Block

Sleeve Variations: Puff sleeve, Cap Sleeve, Petal Sleeve, Bell Sleeve.

Knit Foundation: Knit top foundation, Oversized knit top ,Knit top .

Chapter- 6: T-Shirt Drafting

Chapter- 7: Introduction to sleeve –bodice combination: Basic Kimono, Raglan sleeve, Drop shoulder.

Collar Variations: One piece collar, Two piece collar

Chapter- 9: Basic Shirt Drafting

Reference Books:

1. Pattern making for Fashion Design — Helen Joseph Armstrong.
2. Aldrich W- Metric Pattern Cutting –Blackwell
3. Aldrich W- Metric Pattern Cutting for Menswear –Blackwell

Paper Code	520547	Credits: 3	Class Hours: -- hrs.
Paper Title:	Apparel Production process & details		

Production and Productivity: Concept of production and productivity, Productions system its input and out puts, productivity measure, quality and productivity , Efficiency , effectiveness and productivity, productivity and profitability, benefits of improving productivity, Dynamics of productivity change.

Productivity analysis: Labor time method, financial method, the Kurosawa structural approach, Lawler’s approach, factors to increase productivity.

Apparel Manufacturing process: Product development, cutting, and sewing and Finishing, Order receive to shipment (Process flow chart of garments manufacturing). Receipt order, Preparing detailed T & A, Fabric ordering, Trim ordering, Fit sample, PP Sample , Size set sample approval, Preproduction meeting, bulk production, Inspection and Shipment.

Learning curve: Definition, examples with mathematical modeling (exponential growth, exponential rise or fall to a limit, power law, Sigmund function), general learning limits

Production system: Importance of layout decision, objective of layout design, layout design consideration, basic layout types (product layout, advantage and disadvantage of product-oriented layout, U-shaped production line, improving layout using work-cells, process layout, process layout example, advantage and disadvantage of process layout, fixed position layout, cellular layout), Make through production system, sectional , PBS , UPS and

Selective conveyor belt system, Quick response sewing system.

Push & pull production system, Characteristics & benefits of Cellular manufacturing system.

Continuous improvement, JIT (Just in time). Different production waste.

Layout : Importance of layout decision, objective of layout design, layout design consideration, basic layout types (product layout, advantage and disadvantage of product-oriented layout, U-shaped production line, improving layout using work-cells, process layout, process layout example, advantage and disadvantage of process layout, fixed position layout, cellular layout),

Reference:

1. production and Operation management- J. heizer, B render
2. Operation management – Dr. Ziaul- HauqMamun
3. Operation Management for competitive advantages by- Richard B. Chase, F. Robbert Jacobs, Nicholas J. Aquilano
4. Industrial Engineering in Apparel Production management- MartanTelsang

Industrial Engineering in Apparel Production Management: Engr Elis Khalil

Paper Code	523601	Credits: 2	Class Hours: -- hrs.
Paper Title:	Introduction to statistics		

Introduction

Application of Statistics in RMG industry, Definition of Statistics, Relevant terms: Population and Census Survey, Sample and Sample Survey, Data, Sources of Data, Methods of Data collection, Variable, Different types of Variables.

Classification and Graphical representation

Frequency Distribution for Qualitative Variable and Quantitative Variable- Ungrouped Frequency Distribution and Grouped Frequency Distribution, Appropriate diagrams for different types of variables- Bar diagram, Pie chart, Histogram, Frequency Polygon.

Measures of Central Tendency

Different types of Measures of Central Tendency and their computation- Arithmetic Mean, Weighted Arithmetic Mean, Geometric Mean, Harmonic Mean, Median, Mode, Related Positional Measures.

Measures of Dispersion

Different types of Measures of Dispersion and their computation- Range, Mean Deviation, Quartile Deviation, Variance, Standard Deviation, Coefficient of Variation, Basic idea of Skewness and Kurtosis.

Correlation and Regression

Simple linear regression model, Correlation analysis.

Probability and Probability Distribution

Simple ideas of Probability, Different definitions related to Probability, Probability Distribution- Normal Distribution.

Sampling

Definition of Sampling, Types of Probability and Non Probability Sampling.

Test of Hypothesis

Some definitions related to test of hypothesis, Normal test, t-test.

Reference Books :

1. An Introduction to Statistics and Probability (4th Edition) — M. Nurul Islam
2. Basic Statistics Methods and Applications — M A Jalil, RezinaFerdous
3. Business Statistics (15th Enlarged Edition) — S.P. Gupta, M.P. Gupta
4. Fundamentals of Experimental Desing — M.r. Bhuiyan
5. An introduction to sampling methods theory and application (Revised Edition) — M. Nurul Islam

Paper Code	521131	Credits: 3	Class Hours: -- hrs.
Paper Title:	Business communication		

Objectives: This part of English communication skill course focuses on developing communication skills in case of business purposes. This skills will be integrated to encourage better language use for communication.

Contents:

- **Situational writing:** posterd, slogans, advertisements, tenders, notices, memos, official notices, emails, minutes
- **Newspaper writing:** reports, press releases
- **Resume, CV, cover letter, motivation letter**
- **Letter writing:** business letters, official letters, complaint letters, letters to electronic and print media
- **Application writing :** application for bank solvency, application for bank loan
- **Reference books:**

1. Bovee, and Thill (2012). Business Communication Today, 14th Education, Pearson Education, India.

2. Shirley, Taylor (2005). Communication for Business, 4th Edition, Pearson Education, India.

3. English Writing Skills

Prof. Md. Ataul Haque

Prof. Jahrul Islam

Dr. Binoy Barman

4.A text Book of Advanced Functional English

Prof. A.H.M. Mohiuddin

Prof. A.F.M. Abdul Kasem

Paper Code	520746	Credits: 3	Class Hours: -- hrs.
Paper Title:	Fashion illustration -2 : - Practical		

8-head Male-figure Drawing technique: from different view: - Front/Side/Back, Children's

Figure Drawing: Figure proportion according to age.

Free hand figure drawing practice (Advanced):

Pose Drawing: Pose figure drawing of Male and Female, 10 head and 12 head figure for fashion illustration.

Fashion Accessories Drawing: drawing technique of different types of fashion accessories, accessories designing.

Flat garment Drawing: Drawing practice of flat garment in detail with fabric texture. Uses of different color medium,

Fabric rendering/Texture drawing, Fashion Illustration drawing practice, Presentation :
Understanding of concept Board / Inspiration Board, Fabrication Board.

Book Reference:

- By- Patrick John Ireland. Fashion Design Illustration: MEN. BT. Batsford Limited. London. 1996.
- By- Patrick John Ireland. CHILDREN'S FIGURE Drawing. BT. Batsford Limited. London. 1996.
- By- Patrick John Ireland. Fashion Design Drawing and Presentation. BT. Batsford Limited. London. 1996.

Year -3, Semester-5

Paper Code	530563	Credits: 3	Class Hours: -- hrs.
Paper Title:	Apparel Quality Control Management		

Introduction: Discussion on Course outline, Challenges facing by the RMG sector of Bangladesh, Importance of Quality for export oriented Readymade Garment Industry. **Understanding Quality & Quality Control:** What is Quality & Quality Control?, Difference between Quality Assurance & TQM, Eight Dimension of Quality, Multi dimension of Quality, Benefits of Quality. Describe Quality as a multi dimensional construct in clothing industry.

Quality Control Organ gram: What is Organogram?, Importance of Organ gram, Discussion on Factory Organ gram, Discussion on Quality Control Departmental Organ gram

Responsibilities of Quality Control Personnel: Responsibilities of all positions / personnel involve in Quality Control Department (Quality Manager – Quality Inspector

Fabric Defects: Definition of Fabric Defects, Categories of Fabric defects, Discussion on Woven fabric defects, Discussion on Knit Fabric Defects, Practical viewing of swatches with defects.

Fabric Evaluation: Discussion on fabric evaluation, Different fabric Inspection system, Importance of fabric inspection, 4 point system, 10 point system, Math practice, Report analysis.

Garment measurement: Importance of garment measurement, Precondition for garment measurement, Understanding measurement tape, Measuring procedure & parts/ points of Tops & Bottoms, practical on measurement, Report writing.

Zone Classification: What is Garment Zone? Importance of Zone Classification, Zone classification of Shirt & Pant. Different defects classification according to zone (zone A & zone B)

Garment Defects: Definition of Garment Defect, Garments defects classification according to various manufacturing stages, pattern defects in garments, spreading defects in garments, cutting defects in garments, sewing defects in garments & finishing defects in garments , Report writing, Defects identification (practical viewing).

Section wise Quality Control: Importance, Quality Control in different sections:

- Store, ▪ Sample, ▪ Cutting, ▪ Sewing, ▪ Finishing & Packing.

Inspections , Audit & AQL: Different Inspection/Audit usually performed in garment industry, Purposes of Final Inspection of garment, Sequence of Final Inspection of garment, AQL, Use of AQL card, Acceptance criteria, Reporting.

Multimedia Presentation: Video presentation on Quality Control activities in Woven, Cut & Sew knit, Fully Fashion garment industry.

Reference Books :

Quality Assurance for Garment & Textiles By – Sara J. Kadlph Managing
Quality in Apparel Industry By – P. V. Mehtha

Paper Code	530565	Credits: 2	Class Hours:-- hrs.
Paper Title:	Tools & Techniques of Merchandisers		

1. Merchandising definition, Role in apparel sector
2. Alphabetical meaning of MERCHANDISER, quality and job responsibility
3. Merchandising process
4. Buyer, order, Business procedure and legal requirements for apparel business
5. Marketing and policies for apparel business
6. Analysis of an order: Start to end
7. Price offering techniques and negotiations
8. Raw material booking procedures and formats
9. Product development procedures
10. Letter of credit, terms, types and processes
11. Incoterms
12. Merchandising files
13. Merchandising follow-up, formats and checklists

Reference Books:

1. Chaffey, Mayer, Johnston, Ellis-Chadwick (2000) Internet Marketing, Prentice Hall.
2. Hagel, J and Singer M. (1999) Net Worth, McKinsey.
3. Fashion for Profit: From Design Concept to Apparel Manufacturing .- By Frances Harder
4. Apparel Manufacturing: Sewn Product Analysis, 4/E By Glock Ruth E., Glock
5. Costing for the Fashion Industry By Michael Jeffrey, Nathalie Evans

Paper Code	530622	Credits: 2	Class Hours: --hrs.
Paper Title:	Knitwear pattern drafting - Practical		

This is an introductory knitwear pattern cutting course will introduce you to the basic techniques for both women's and menswear pattern cutting. You'll be working from a standard size 12 template (block) and you'll investigate how to make a range of pattern pieces for the basic knitwear bodice and sleeve. You'll get the opportunity to discuss different styles and how you can alter your patterns to create different shapes.

The course will also cover a brief introduction to knit pattern sizing and how you can modify your patterns for a better fit. Human Figure analysis & Measurement Technique, Measurement chart analysis also be done the Basic easy fitting jersey block, Knitwear Blocks, T-shirt, Polo shirt, raglan adaptation the dress blocks & the trouser block & Hoods.

Reference Books:

- Keith Richardson (2008) *Designing and Patternmaking for Stretch Fabrics*, Fairchild BooksUSA.

- Nancy Zieman(2013)*Sew Knits with Confidence*, Krause Publications
- Winifred Aldrich (2008) *Metric Pattern Cutting for Women's Wear*, 5th Edition, John Wiley & SonsUK.
- Helen Joseph Armstrong (2009) *Patternmaking for Fashion Design*, 5th Fifth Edition,PearsonUSA.
- Winifred Aldrich (2012) *Fabrics and Pattern Cutting*, 1st Edition, John Wiley & Sons UK.

Paper Code	530567	Credits: 3	Class Hours: -- hrs.
Paper Title:	Testing of textile		

Chapter- 1: Introduction of testing of textiles.

Chapter- 2: Process control, product control, quality cycle. **Chapter- 3:** Moisture, moisture regains moisture content. Moisture regain and moisture content of some fibers, relation between moisture regain and moisture content.

Chapter- 4: Fiber fineness, airflow method of fiber fineness, twist, fiber maturity, relation between immaturity count and fiber weight, tensile properties of fiber, yarn and fabric.

Chapter- 5: Yarn count: direct count and indirect count, their conversion measurement of yarn count: bessley’s balance method, wrap reel method, knowles balance method.

Chapter- 6: Fabric stiffness, measurement of fabric stiffness. Fabric drapes ability, measurement of fabric drapability. flammability of fabric and its rating, crease, crease recovery, crease recovery angle, measurement of crease recovery angle fastness properties :rubbing fastness, wash fastness, perspiration fastness

Reference Books:

1. Principles of Textile Testing- By: J. E. Booth
2. Textile Quality- By: Mario Bona
3. Physical testing of textiles- By: B P saville
4. Testing of Textiles- AKM Faridul Azad

Paper Code	530568	Credits: 1	Class Hours: -- hrs.
Paper Title:	Testing of textile - Practical		

Experiment – 1: Identification of different textile fibers by burning test.

Experiment – 2: Determination of Fiber fineness by air flow method.

Experiment – 3: Determination of yarn count & CSP by wrap reel and balance method.

Experiment – 4: Determination of yarn count by Bossley’s balance method.

Experiment – 5: Determination of twist by twist tester of a given yarn sample.

Experiment – 6: Determination of GSM of a fabric (woven & knit).

Experiment – 7: Determination of fabric shrinkage/extension & spatiality.

Experiment – 8: Determination of color fastness to rubbing of a dyed sample.

Experiment – 9: Determination of color fastness to washing of a dyed sample.

Experiment – 10: Determination of fabric tensile, tear and bursting strength.

Reference Books:

- 1..Principles of Textile Testing- By: J. E. Booth

Paper Code	530569	Credits: 2	Class Hours: -- hrs.
Paper Title:	International Trade & Transaction		

Globalization and International Business: Definition of Globalization, International Business, Importance, Contributing Factors, Modes of Operation, Drawbacks of Globalization.

The Political and Legal Environments Facing Business: Definition of a Political System, Concept of Political Environment, Basic Political Ideologies, Political Risk, Definition of a Legal System.

Garments Terms & Definition, GSP & QUOTA System: Garments Terms & Definitions, GSP System, QUOTA System, and Hierarchy of needs theory.

The Determination of Exchange Rates: Foreign Exchange rate & Market, Foreign Exchange instruments, How companies use foreign exchange, Objectives of the IMF.

Money and Banking: Origin of Banking, Number and Types of Banks in Bangladesh, Bangladesh Bank.

The Economic Environments Facing Business: Importance of Economic Environments, Features of an Economy, Definition of Economic System, Functions of World Bank, Countries classified by Economic System.

Multimodal Transportation System: Multimodal transportation, Bill of lading, Technical discussion on labeling requirements.

Export and Import Strategies and Documentation, Documentation of LC: Import and export documentation, Documentation for opening L/C, Documentation for shipment.

Foreign/International trade in Bangladesh: Factors or causes and characteristics of foreign trade in Bangladesh, Import procedures of Bangladesh, Problems of import Trade in Bangladesh, Types of exporter in Bangladesh, Differences between the Home Trade and International Trade.

RMG Industry of Bangladesh: Garment Industry: An introduction, The development of the garment industry in Bangladesh, Contribution of RMG to the Bangladesh Economy, Problems and challenges of the Bangladesh RMG Industry.

The Cultural Environments Facing Business: Definition of Culture, Elements of Culture, What is social stratification system?, Affecting IB by social stratification, Issues, Company and Management Orientations.

Reference Books :

1. International Business, 13th Edition -- John Daniels, Lee Radebaugh, Daniel Sullivan [Published by Prentice Hall 2011]
2. Garment & Textiles Merchandising, 3rd Edition, --- M.A Razzaque [Popular Publications]
3. Introduction to Business, 1st Edition, --- Dr. M. AtaurRahman, Md. Robiul Islam
4. The Readymade Garment Industry of Bangladesh -- Hafiz G.A. Siddique; [The University Press Limited]
5. Global Business Today, 6th Edition -- Hill, Charles; [McGraw Hill Irwin]

Paper Code	530571	Credits:2	Class Hours: --hrs.
Paper Title:	Human Resource Management		

Introduction: Definition–Nature–Components–Functions–Reasons for Growing Importance of Human Resource Management–Principles–Philosophies–Challenges. Organizational Factors–Organizational Performance Models – Internal and External Environment.

Human Resource Planning: Concepts–Purposes–Processes–Description of the Factors of the Process.

Job Analysis and work study: Concepts–Definition–Terminologies–Importance Informationrequired–Steps–Methods–Writing job Descriptions and Specifications–Types–Contents–Drafts–Guidelines–job Analysis in a Jobless World and Reasons thereof – Techniques used to foster change. **Recruitment and Selections of Human Resources:** Concepts – Factors – Sources and their merits anddemerits – Innovative sources of Recruitment – Recruitment Process – Selection Process – StandardSelection Conditions, Reliability and Validity – Concepts – Steps to validate a test – Guidelines to set atest program – sources of unreliability Interview – Concept – Purpose – Process – TechniquesAdministrative Mechanism – Problems of Interviewing – Detection of dishonesty – Techniques toAvoid Interview Mistakes.

Career Transition: Orientation – Concepts – Reasons – Programs – Problems, Transfer – Concepts – Reasons – Types – Impacts, Promotion – Concepts – Rationale – Types – Basis – Objectives – Devises of Promotion, Demotion – Definition – Reasons – Impact Techniques, Separation – Layoff – Concepts – Purpose – Problems.

Skill Training: Concepts – Steps – Methods – Effectiveness Evaluation – Principles of Learning Theory.

Performance Evaluation: Concepts – Importance – Purposes – Process – Methods – Distortion Factors – Overcoming Pitfalls.

Wage and salary administration: Concepts – Goals – Considerations – Process, job Evaluation – Concept – Steps – Methods – Current Issues.

Employee Benefits: Concepts – Process Goals – Importance – Benefits to Management.

Recommended Books:

1. Werther, B.William and Davis, Keith (1995).*Human Resources and Personnel Management*, 5th Edition, Irwin-McGraw Hill Co.
2. Wendell L French, (2006). *Human Resources Management*, 6th Edition, Houghton Mifflin Company.
3. De Cenzo, A. David & Robbins, P.Stephen, (2012). *Fundamentals of Human Resource Management*, 11th Edition, Wiley India Pvt. Ltd.

Paper Code	530756	Credits: 2	Class Hours: --hrs.
Paper Title:	Advanced pattern: Menswear - Practical		

This menswear pattern cutting course offers you an excellent opportunity to learn and develop all aspects of professional menswear pattern cutting skills to industry standard.

The course will introduce you to exciting new methods of contemporary pattern cutting for menswear, focusing on current trends and shapes as well as covering the more traditional methods. This course will include:

Introduction to Men’s wear, Method of Measuring and understanding body and size, chart. Classical Shirt Block drafting, Casual Shirt block drafting. Drafting Classic and Easy Fittings Classic Casual Jacket block.

Drafting Classic Suit jacket block, Over Garment Block. Drafting One-piece & Two-piece sleeve block, formal wear. Draft Classic Tee shirt block drafting, Easy fitting tee shirt block and Sleeve adaptation, Design analysis and new concept development video tutorials and presentation, Draft Basic parallel trouser block and trouser variation. Men’s-wear Theme/inspiration Selection, Design illustration range and design development. (Ongoing work), Finalized the Men’s-wear Theme selection, illustration range and collection making. Final touch the Research /Mood board, color board, design analysis, design developments, illustration range, selection of design and Pattern making and make samples. Sewing/Lab work collection making.

Reference Books:

- Winifred Aldrich (2011) *Metric Pattern Cutting for Menswear*, 5th Edition, John Wiley & Sons UK.
- Gareth Kershaw (2013) *Patternmaking for Menswear*, 1st Edition, Laurence King UK.
- DennicChunman Lo (2011) *Pattern Making (Portfolio Skills)*, 2nd Edition, Laurence King UK.
- Helen Joseph Armstrong (2009) *Patternmaking for Fashion Design*, 5th Fifth Edition, PearsonUSA.

Paper Code	530758	Credits: 3	Class Hours: -- hrs.
Paper Title:	Computing for Designer: E-Fashion - Practical		

Introduction to the E-fashion, uses of different tools & illustrator software related to fashion designing, designing technique using software, Motif Drawing and Design arrangement (Folk motif, Geometric motif, Flower motif, Egyptian motif, Islamic motif, Indonesian motif, Saree border design, Neck line embroidery design (Kamiz for women), Neck line embroidery design (Panjabi for men).

Basic garment and garment detailing drawing techniques (T-shirt, Skirt, Pant/Trouser, Basic Top, Gown, Neck lines, Sleeve styles, Cuffs, Collar styles, Pockets). Fabric and Garment Printing designing (Fabric print design, Fabric check design, Fabric strip design, Fabric shaded design, Chest print design). Fabric Texture designing. Accessories design (Different type button & zipper design), By using computer graphic software.

Book Reference:

- By- Kevin Tallon.
- Digital Fashion Illustration with Photoshop and Illustrator
- Fashion and Textile Design with Photoshop and Illustrator: Professional Creative Practice (Required Reading Range) by Robert Hume (Author)
- Creative Fashion Design with Illustrator® Paperback – October 15, 2013 by [Kevin Tallon](#) (Author)
- Flats: Technical Drawing for Fashion, second edition: A Complete Guide 2nd Edition by [BasiaSzkutnicka](#) (Author)
- How to Draw Fashion Flats: A practical guide to fashion technical drawing (pencil and marker techniques) (Fashion Croquis) (Volume 2)

by [Irina V Ivanova](#) (Author)

Year -3, Semester-6

Paper Code	530768	Credits: 3	Class Hours: -- hrs.
Paper Title:	Surface Ornamentation & Decoration - Practical		

Introduction to the Surface Design, Types of Motifs and origin, Motif Drawing, Motif Drawing and Design arrangement (Folk motif, Geometric motif, Flower motif, Egyptian motif, Islamic motif, Indonesian motif, Saree border design, Neck line embroidery design (T-shirt/ Shirt/ Dress /pant /Evening gown etc)

Introduction to the Basic Hand Stitches and Embroideries (Run stitch, Button-hole stitch, Chain stitch, Stem stitch, Border stitch, Satin stitch, , Lazy Daisy stitch, Cross stitch, Shadow stitch, Kashmiri stitch, Shaded stitch, French knots).

Handmade garment detailing (Different type fabric flower design, Patch work).
 Introduction to the Printing Methodology, Hand-paint, Block print design.
 Traditional manual dyeing-methodology (acid-dye, vat-dye, base-dye, direct-dye, natural/vegetable-dye), Dyeing Chemicals, equipments and materials. Dyeing methods-tie-dye & Batik (wax-batik),
 Presentation work.

Book Reference:

1. by- Albert Recinet. The Studio Library of Decorative Art- The Encyclopedia of Ornaments. 1989 Studio Edition. (1996).
2. by- Om Prakash. EXPRESSION. India.
3. by- Om Prakash. IMPRESSION. India.
4. Modern ornamentation: Being a series of original designs for the patterns of textile fabrics, for the ornamentation of manufactures in wood, metal, of walls & ceilings and other flat surfaces Paperback – 1976 by Christopher Dresser (Author)
5. The Surface Designer's Handbook Spiral-bound – October 1, 2006
By Holly Brackmann (Author)
6. The Art of Manipulating Fabric by Colette Wolff (Author)

Paper Code	530770	Credits: 3	Class Hours: -- hrs.
Paper Title:	Digital Fashion Illustration Techniques -Practical		

This course will provide student with the skills about the digital illustration concept and Techniques. Through practical exercises and focused discussions, students will research a theme and learn how to develop your own illustration collection digitally. They will begin to draw and communicate their ideas exploring silhouette, detail and color, eventually developing a small capsule collection of designs using adobe Photoshop and Illustrator.

Fashion silhouettes, cut and style of different garments, drawing flats sketch for fashion. And developing a personal drawing style digitally, Exploring color palettes, digital collage beginning a portfolio of design and illustrative work.

Book Reference:

- By- Kevin Tallon.
- Digital Fashion Illustration with Photoshop and Illustrator
- Fashion and Textile Design with Photoshop and Illustrator: Professional Creative Practice (Required Reading Range) by Robert Hume (Author)
- Creative Fashion Design with Illustrator® Paperback – October 15, 2013 by [Kevin Tallon](#) (Author)
- Flats: Technical Drawing for Fashion, second edition: A Complete Guide 2nd Edition by [Basia Szkutnicka](#) (Author)
- How to Draw Fashion Flats: A practical guide to fashion technical drawing (pencil and marker techniques) (Fashion Croquis) (Volume 2)

by [Irina V Ivanova](#) (Author)

Paper Code	530581	Credits: 3	Class Hours: --hrs.
Paper Title:	Apparel Merchandising Management		

1. Consumption & Costing: An introduction
2. Analysis of tech. Pack and PO sheet
3. Garment's parts, points and measuring
4. Consumption Type, methods and procedures
5. Woven Fabric consumption: Tops & bottoms
6. Knit fabric consumption: Tops, Bottoms and undergarments
7. Trims and accessories consumption
8. Fabric, trims and accessories costing
9. Cost of embellishments
10. CM calculation
11. Commercial, banking and other cost calculations
12. Garments costing and pricing

Reference Books:

6. Chaffey, Mayer, Johnston, Ellis-Chadwick (2000) Internet Marketing, Prentice Hall.
7. Hagel, J and Singer M. (1999) Net Worth, McKinsey.
8. Fashion for Profit: From Design Concept to Apparel Manufacturing .- By Frances Harder
9. Apparel Manufacturing: Sewn Product Analysis, 4/E By Glock Ruth E., Glock Costing for the Fashion Industry By Michael Jeffrey, Nathalie Evans

Paper Code	530609	Credits: 3	Class Hours: -- hrs.
Paper Title:	Fully Fashioned Knitwear		

Chapter- 1: Introduction to Fully Fashioned Knitwear.

Chapter- 2: Appreciation of various knitting machine, knitting elements & knitting structure.

Chapter- 3: Manufacturing advantage & disadvantage.

Chapter- 4: Knitting yarn production and properties.

Chapter- 5: Choosing yarn for knitting design.

Chapter- 6: Production technique of fully fashioned knitwear.

Chapter- 7: Process (operation) breakdown/analysis.

Chapter- 8: Understanding basic design/stitch analysis, properties, manufacturing techniques

& end uses (Jersey, Ribgating, Double Jersey etc.). **Chapter- 9:** Basic Knit Structure (stitch) notation.

Chapter- 10: Understanding Fancy knitting Technique & structure on V-bed knitting machine like shaker/half cardigan, full cardigan, drop knit, Milano design, Zigzag, tuck design, different cables & diamond design etc.

Chapter- 11: The knitwear style & design analysis.

Chapter- 12: Analysis of the variables in the knitwear design and fashioning (pattern or design chart) calculation technique.

Chapter- 13: Quality aspects in V-bed knitting, material control, process control etc.

Chapter- 14: Merchandising technique in fully fashioned knitwear.

Chapter- 15: Calculating yarn consumption for Fully Fashioned Knitwear.

Chapter- 16: Costing & Pricing technique for Fully Fashioned Knitwear.

Reference Books :

1. The Technology of Clothing Manufacture - Harroldcarr and Barbara Latham. Blackwell Science Ltd. London 1994
2. Knitted Clothing Technology - Terry Brackenburry. Blackwell Science Ltd. London
3. Introduction to Clothing Manufacture - Gerry Cocklin. Blackwell Science Ltd. London
4. Fabric Science - Arthur price, Fare child pub, NY, 1999.
5. Flat Knitting - Samuel Raz.
6. A Guide to Total Quality Management - Scottish Enterprise, Glasgow U.K. 1991.
7. Quality Assurance for Textile and Apparel - Fare Child Publications, NY, 1998

Paper Code	530583	Credits: 3	Class Hours: -- hrs.
Paper Title:	Industrial Garments washing		

Introduction to Garments Washing: General discussion about denim fabric, Basic principles of garments washing, definition, purpose and effects of garments washing process, Classification of denim washing process.

Function of various chemical used in washing: Brief discussion about function, properties, application, criteria and general mechanism of wetting agent, Chelating agent, softener, silicone, resin, KMnO₄, Sodium meta bi-sulphite, NaOH, Sodium carbonate, Bleaching powder, Acetic acid, leveling agent, soap and detergents, anti foaming agent, anti backstainer etc.

Garments Washing Machine: Function and Mechanisms of top loading and front loading machine, grinding machine, pen grinder, 3-D crinkler, plastic staple machine, gas and steam dryer, laser treatment, PP spray gun, pp cabin, whiskering pattern, abrasive paper etc.

Common dry processes: Purpose, application procedure and problems of hand scraping, whiskering (manual and laser), destroy, pp spray, pp spot, tacking or tagging, grinding, heat pressing, aquarium wash etc.

Common wet processes: Purpose, application procedure and problems of garments/normal wash, rinse wash, tie wash, pigment wash, caustic wash, enzyme wash, stone wash, stone enzyme wash, towel bleach wash, acid wash/snow wash/ white wash, burn-out wash.

Introduction garments dyeing: General overview on garments dyeing, distinguishes between garments and fabric dyeing, characteristics of different dyes used in garments dyeing, garments dyeing with direct dyes, reactive dyes and pigment.

Garments dyeing with different concepts: Application procedure, criteria and process parameters of Cold pigment dyeing, tie and dyeing, dip dyeing, florescent pigment dyeing, Common dyeing problems (cloudy dyeing, unevenness, reproducibility, fastness problems, spots and poor appearance goods) and remedies.

Garments over dyeing and tinting: Introduction to garments over dyeing and tinting, tinting with direct dyes and reactive dyes, garments over dyeing with reactive dyes, special chemicals used in garments dyeing, Quality control in garments washing and dyeing, ways and means of quality control, quality flow-chart for wet process ,different types of washing faults

Reference Books :

Practical Hand Book of Washing and Dyeing -- Engr. Md. SaifurRahman

Home dyeing with natural dyes by Margaret S.Furry& Bess M. Viemont

Recent published journal articles.

Garments Washing & Dyeing by M.T Islam

Paper Code	530772	Credits: 2	Class Hours: -- hrs.
Paper Title:	Pattern Grading - Practical		

This course includes an introduction to master pattern; size chart, rectangle grading; measurement different and tabulation; grade plan, basic skirt grading; curve grading, neck and armhole, sleeve, cuff and collar grading; bodice block grading; trouser grading with industrial chart; grading of different part of garments; grading of apparels with industrial chart;

Reference Books:

1. Pattern making for fashion design — Helen Joseph, Armstrong
2. Metric Pattern Cutting — Winifred Aldrich

Paper Code	530774	Credits: 3	Class Hours: -- hrs.
Paper Title:	Fashion marketing		

Fashion Marketing Basics: Introduction to Fashion Marketing. Understanding the 4Ps and an additional 7Ps of fashion marketing. Analyzing Market Environment (SWOT and PEST Analysis, Consumer Studies, Segmentation strategies). Understanding the importance of stewardship, ethical responsibilities and sustainability in regards to fashion.

Product Analysis: Understanding Product Analysis. Analyzing Fashion Cycle and Product Portfolio Analysis (Boston Matrix). Conceptualization of Branding, Brand Management and E-Branding. Porter's Five Forces Analysis. Introduction to Internet Marketing Trend and Forecasting Analysis of Clothing and Accessories. Preparation of Trend Board. Understanding Research and Development. Understanding Commercial and Luxury Fashion.

Buying and Logistics: Understanding the difference between B2B and B2C aspect of fashion. Fashion Supply Chain Analysis. Understanding the Roles and Responsibilities of Fashion Buyers. Relation Analysis with Buyers and Manufactures. Understanding the concept of Fashion Retail.

Fashion Promotion: Understanding the Promotional Mix and the Four Dimensions of Fashion Promotion. Analysis of Integrated Fashion Communication. Online Promotional strategies. Understanding the importance of Public Relations, Viral Advertising and Social Network Marketing. Preparation of Fashion Communication Model including Budget Analysis. Introduction to Visual Merchandising and its promotional techniques. Preparing Press Releases and Creative Briefs.

Pricing in Fashion: Conceptualization of various pricing methodologies adopted for various fashion products. Understanding the Value Chain Analysis. Analysis of Consumer spending patterns of various target markets. Relationship between pricing strategies involved while executing sustainable fashion operations. Break Even Analysis.

Consumer Analysis: Understanding the stages of purchase behavior. Understanding the social and psychological factors involved in consumer choices. Introduction to Consumerism in Fashion. Methods of identifying Niche markets in fashion. Understanding the fashion movement theory (Trickle Up, Down, Across, fashion leaders and followers).

Assignments and Research: Understanding the various research methods used to collect and analyze primary and secondary data. Conceptualization of plagiarism, referencing and the ensuing rules regulations associated with market research and reports. The rules and regulations regarding assignments and research are as follows:

- Research Literature should be referred accordingly using either Harvard or OSCOLA method. These are the links that will guide the students on how to construct references: http://www.staffs.ac.uk/assets/harvard_quick_guide_tcm44-47797.pdf.
- Assignments would be based on case studies regarding the current marketing events of either a particular market or marketing practices by various brands both local and international (See Important Reading Materials).
- Students would be asked to prepare trend board based on secondary research from wgsn.com or even Google regarding the current fashion trend in terms of season, color, fabrics and accessories and present them in the form of a collage in class.
- Students would also prepare presentation sessions promoting a mock brand and prepare a Fashion Communication Model to support their promotion.
- Other assignment would include group work such as field activities such as primary data collection and analysis regarding consumer studies, positioning analysis, market segmentation, etc.
- Students would be involved in groups with real brands to study their ideal consumers and analyze current trends in lieu with typical designs associated with consumer demand.
- The module also considers the time students take to develop assignments such as construction of trend boards, creative brief and fashion communication presentations.

Reference Books:

1. The Value of the UK Fashion Industry, the British Fashion Council, 2009 (Oxford Economics).
2. AarongSuperbrand, Pride of Bangladesh, 2010 (www.aarong.com).
3. Themed Flagship Stores of the New millennium, theory, practice and prospects (Kozinets et. al, 2002). Journal of Retailing.
4. Analyzing Competitiveness of clothing export sector of India and Bangladesh, International Business Journal, 2013, Lalit Mohan Kathuria.
5. Consumer confidence as a predictor of consumption spending evidence for the United States and the Euro Area, Stephane Dees, Pedro Soares Brinca, European Central Bank, June 2011
6. Fashion Marketing, 3rd Edition, Mike Easey, 2009.
7. Fashion Marketing: Contemporary Issues, 2nd Edition, 2007, Tony Hines, Margaret Bruce.

Paper Code	530776	Credits: 3	Class Hours: -- hrs.
Paper Title:	Advanced pattern : Children's wear - Practical		

It is a specialized area. Professionals in Pattern Making for Children are extremely required in our society where the Children Fashion Market is on great demand. This course has been planned to prepare specialists able to satisfy consumers' request.

The course will study in depth Children's system measurement and allowance, different from the adults', the planning and the layout of Children garments. Moreover our student will study theoretic subjects such as: fabrics, materials in general and new Fashion trends. our student will be a qualified professional able to face the working reality with a deep knowledge of Market demand You'll learn this Programmed Study of Basis, Industrial Techniques, Fibers and Yarns, Sewing Techniques, fashion forecast and Trend Study, ideas will be represent by sketches and Patterns will be made from the inspiration board and sketches, student will learn the top and bottoms item both on this subject. Decoration, Illustration, Quick Sketches, Fashion Accessories & Flat Pattern Design related to the children wear and fashion. At the end of this module students will also understand how to cope up with this problem .

Reference Books:

- Winifred Aldrich(2009) *Metric Pattern Cutting for Children's Wear and Babywear*, 4th Edition, John Wiley & Sons UK.
- Carla HegemanCrim(2014) *Pattern Making for Kids' Clothes*, Search Press LtdUSA.
- DennicChunman Lo (2011) *Pattern Making (Portfolio Skills)*, 2nd Edition, Laurence King UK.
- Winifred Aldrich(2008) *Metric Pattern Cutting for Women's Wear* ,5th Edition, John Wiley & SonsUK.

Paper Code	530778	Credits: 2	Class Hours: --hrs.
Paper Title:	Draping & evening Gowns - Practical		

This is the combination course of all the Fashion design courses. In this course Students are develop skills necessary to create the final sample garments from the basic flat. The emphasis is both on the illustration & sketch and also the production of the first muslin! Prototype through the application of advanced draping and pattern drafting techniques. Students work with dress form & fit models to learn the various fitting procedures used in the industry. Pattern alterations and manipulations are demonstrated in class to show how alterations are processed and corrected on the paper pattern and finally thus create a collection of evening gowns with illustration. Practically make a evening gown and presentation.

Reference Books:

- Helen Joseph-Armstrong (2013) *Draping for Apparel Design*, 3rd Revised edition, Fairchild Books USA.
- Sharon Sobel (2013) *Draping Period Costumes: Classical Greek to Victorian: (The Focal Press Costume Topics Series)*, 2nd Edition, Focal Press.
- Connie Amaden,Crawford (2012) *The Art of Fashion Draping* ,4th Edition , Fairchild Books.
- Winifred Aldrich (2008) *Metric Pattern Cutting for Women's Wear*, 5th Edition, John Wiley & Sons UK.

Year -4, Semester-7

Paper Code	540589	Credits: 2	Class Hours: -- hrs.
Paper Title:	Sourcing & Negotiation techniques		

Chapter- 1: Ethical Sourcing Policy; Code of conduct of suppliers Sourcing Principles.

Chapter- 2: Method of Sourcing/ Sourcing Criteria

Chapter- 3: Ten things to Consider for Sourcing Success

Chapter- 4: International Sourcing; Sourcing Criteria and Process

Chapter- 5: Sourcing Management; Introduction of Sourcing Management, Sourcing Strategy, Domestic International Sourcing, Sourcing Priorities and Process

Chapter- 6: Principles of Negotiation

Chapter- 7: Negotiation Action; The Win-Loss Approach to Negotiation, The Win-Win Approach to Negotiation, Avoiding Misunderstanding in Negotiation

Chapter- 8: Interpersonal Skills; Verbal Communication Skills, Non-verbal Communication, Effective Listening, Effective Speaking

Chapter- 9: Listening Skills; The ten Principles of Listening, Active Listening

Chapter- 10: Problem Solving; Stages of Problem Solving, Identifying and Structuring

Problems

Chapter- 11: Negotiation: Price and Lead time

Decision Making- An Introduction; Stages of Decision Making

Chapter- 12: Assertiveness- An Introduction; Passive, Aggressive and Assertive

Chapter- 13: Body Language; Gesture, Posture

Chapter- 14: The problem-solving approach

Chapter- 15: Business Negotiation on the Internet

Reference Books:

1. Combined Strategic and Tactical Negotiation Methodology For Resolving Complex Brownfield Conflicts----- Keith W. Hipel, Tarek Hegazy, Saied Yousefi.
2. Developing Negotiation Case Studies --- James K. Sebenius
3. Negotiation --- Brosh M. Teucher, Jeanne M. Brett, Brain C. Gunia
4. Global Sourcing Development --- Jens Hultman, Susanne Hertz, Rhona Johnsen, Thomas Johnsen
5. Supplier Selection in the International Environment --- Arzu Tektas, Aycan Aytakin.
6. A Model of Best Practices for a Sourcing Process --- Spotdealers Oy

Paper Code	540780	Credits: 3	Class Hours: -- hrs.
Paper Title:	Product development & re-engineering - Practical		

Chapter- 1: Basic concept of working procedure in the industry. Introduce with course content & basic concept of industrial product development, how it works & job responsibility **Chapter- 2:** Introduce with latest trend & trend forecast analysis of 2016/2017, how to access of your better inspirational work with demo presentation. Gained knowledge about fashion trend & the procedure how it modify for ready to wear garments

Chapter- 3: Market trend analysis for the re-development of existing product design, design analysis ,conceptual design development Know the taste of culture ,attitude , food habit& the dress up of different people of different country, their size & how it impact to the fashion industry.

Chapter- 4: How to give booking & sample requisition& mail communication For increasing communication skill & preparation of how they work in the industry

Chapter- 5: Industrial print name, print identification, demo presentation. Gain knowledge about Industrial print ,price idea& how it make & measure

Chapter- 6: Industrial embroidery name, different types of embroidery identification, demo presentation

Chapter- 7: Industrial wash name, different types of wash identification, demo presentation

Chapter- 8: Making tech pack Including all the stuff & the detailing

Chapter- 9: Identify the problem & correction of submitted tech pack

Chapter- 10: Assignment submission of Fabrication, Assignment submission of print, Assignment submission of embroidery, Assignment submission of different types of wash

Chapter- 11: Consumption and Costing calculation

Chapter- 12: Design Selection from inspiration, Develop product according to the inspiration, Solve Pattern, Completing the file with all data, Problem solving

Reference Books:

1. Fashion concept from consumer behavior- 3rd edition - by Gini Stephens Frings
2. Design Process, practice & Innovation -Kathryn McKelvey&Janine Maslow
3. Fashion Source 6th edition: - Kathryn McKelvey

Paper Code	540782	Credits: 3	Class Hours: -- hrs.
Paper Title:	Garments CAD - Practical		

Introduction to CAD system, Objective of using CAD , Different types of Cad software & Hardware , Different functions of CAD systems ,Working sequence of CAD section in apparel industry;

Practical work:

- Creation of size table
- Pattern Creation & modification by CAD software (T-shirt, polo shirt, basic long sleeve shirt & basic trouser)
- Pattern grading by CAD software (T-shirt, polo shirt, basic long sleeve shirt & basic trouser)
- Marker making by CAD software

CAD Software Name: Lectra (Modaris, Diamino, Vigiprint/Justprint)

Reference Books

1. Aldrich W- Metric Pattern Cutting- Blackwell
2. Aldrich W- Metric Pattern Cutting for Menswear – Blackwell
3. Armstrong H- Pattern Cutting
4. Beazley A & Bond T – Computer-Aided Pattern Design & Product Development– Blackwell

Paper Code	540784	Credits: 3	Class Hours: -- hrs.
Paper Title:	Fashion Retailing & visual Merchandising - Practical		

An Introductory Analysis of On-Site Retailing: Retail Development, Identification of Specialty Stores, Department Stores, Department Store Conglomerates, The Future of Department Store Retailing Requires, Off-Price Retail Buying, Multi-Channels, The Global Scene, Reasons for Global Expansion, Caution, Global Expansion Dangers, Global Expansion Methods, Retail Trends.

The emergence of Off-Site Fashion Retailing: Off-site Retailing, Electronic Retailing, Important Factors in Web Site Creation, Web Site Design Considerations, Classifications of E-Retailers, Top Retailers with Internet Web Sites, To Enhance Consumer Experience with Online Shopping, Catalog Shopping Benefits, Home Shopping Retailing, Trends in Off-site Retailing.

Organizational Structures: What is Organizational Structure, OS Changes, OS Enhances Operations, Line Positions, Staff Positions, Classifications of Fashion Retailers, On-site Classifications, Single Unit Specialty Stores, Major Plan, Contemporary Organization, Merchandising Functions, Promotional Activities, Store Management Activities, Store Operations Activities, Human Resources Activities, Large Chain Organizations, Off-site Classifications, and Trends in Organizational Structures.

The Fashion Consumer: Identification and Analysis: Consumer Buying Motives, Rational Motives, Emotional Motives, Patronage Motives, Maslow’s Hierarchy of Needs, Decision Making, Demographics, Psychographics, The VALS Segments, Demographic Factors, Age Groups, Social Class Groupings, Family Life Cycle, Trends in Fashion Consumer Behavior and Status.

Classifications and Methodology of Retail Research: Retail Research Components, Store Location, The Consumer, Merchandising, Advertising and Promotion, Customer Services, Human Resources, Sales Methods, Competition, The Research Process, Methods of Gathering Data, Questionnaire Considerations, Trends in Retail Research.

Visual merchandising basics: Why do we display; Color and texture; line and composition; Light and lighting; Types of display and display settings.

Store Interiors: Focal points, Island displays; Risers and platforms; The runway; The catwalk; Counters and display cases; Demonstration cubes; Ledges; 100 percent traffic areas; alternatives to mannequin, Fixtures

Visual Merchandising and display techniques: Attention getting devices: Color, Light, line and composition, Texture, Scale, contrast, repetition, Humor, Motion, Mirrors, Surprise and shock; familiar symbols; Sale Ideas; Graphics and signage

Space Planning Principles: Space architecture and retail formats; Space hierarchy; Space planning layouts; Customer Navigation; Journey to sale; Case Study

Research and design: Visual Design Development; Model Making and experimentation; Concept development; Presentation and communication of visual concepts; Visual Themes; Case Study.

Reference Books:

1. Visual Merchandising and Display by Martin M. Pegler
2. Fashion Retailing-A Multi-Channel Approach – Ellen Diamond

Paper Code	540591	Credits: 3	Class Hours: -- hrs.
Paper Title:	ISO and Compliance		

Introduction: Introduce & Discuss on the course outline, Present scenario of the RMG sector of Bangladesh, Major challenges facing by the RMG sector of Bangladesh, What is Compliance?

Importance of Compliance: Why Compliance is so important for the RMG sector of Bangladesh?

Issues involved: Different issues involved in Compliance which are obvious to comply by the Industry Management. In this chapter common issues will be discussed.

General Requirements of Compliance in Garment Industry: General requirements of the customer to be discussed in this chapter which is very important for garment industry.

ETI base code: What is ETI? Importance of ETI for export oriented garment Industry, Also requirement of Ethical Trading Initiative will be discussed here.

BSCI code of conduct: Which are very important for a certain group of customer and the requirements will be discussed in this topic?

Policies & Flowchart: To fulfill customer requirements factory should frame some policies and maintain flowchart to implement, that will be discussed in this topic.

WRAP certification: Why WRAP certification is important for the garment factory to be discussed.

Accord: Activities of Accord will be discussed.

Alliance: Activities of Alliance needed to discuss.

Multimedia Presentation: In this presentation some of the activities regarding compliance will be presented.

Introduction to ISO: What is ISO? Importance of ISO. Discuss on the activities & Standards of ISO.

ISO 9000: Discussion on ISO 9000 Series Standards its importance & Application.

Benefits of ISO 9000 Certification: Discussion on common benefits of ISO certification.

Requirements of ISO 9001: Discussion on the requirements to be fulfilled to achieve certificate.

Records required by ISO 9001: 2000

Records & Documents should have in garment industry for implementing 9001

QMS (Quality Management System): Importance & Implementation of QMS in RMG industry to achieve standard for ISO certificate.

ISO 14000: Environmental standard will be discussed in this topic.

SA 8000: Certification on Social Accountability & Human rights

Paper Code	540593	Credits: 3	Class Hours: -- hrs.
Paper Title:	Consumer behavior		

1. **Introduction to Consumer Behavior:** Defining consumer behavior, why study consumer behavior, applying consumer behavior knowledge, consumer decision making, an overview of consumer behavior.
2. **Culture and The Consumer Behavior:** Culture, components of culture, useful concepts of cultural analysis, cross-cultural research and multinational marketing, subcultures-nature of subculture, different types of subcultures and their marketing implications.
3. **Socialization, Reference Groups, and Social Change:** Social organizations and reference groups, socialization, reference groups norms and conformity, social change, how social trends affect consumption.
4. **Social Class and Buying Behavior:** Social class, social stratification, research models of social class, social class and buying behavior.
5. **Consumer Behavior and Family:** Family, influences on family decision making, using family concepts in marketing.
6. **Motivation and Personality Aspects of Consumer Behavior:** Motivation and personality, motivation theories, motivation research methods the concept of personality, personality theories, personality in consumer behavior research.
7. **Consumer Decision Process:** Problem recognition, search and evaluation, purchasing processes, post purchase behavior

Recommended Books:

1. Islam Chowdury, Md. Asraful (2000). Consumer Behavior, Printing and Publication Department, Bangladesh Open University
2. Berkman, Harold W. and Gilson, Christopher C. (1986).Consumer Behavior: Concepts and Strategies, Kent Publishing Company, Boston.
3. London, David L. & Della Bitta,Albert J. (1993) Consumer Behavior, 4th Edition, McGraw-Hill International Editions, Marketing Series.
4. Schiffman Leon G. and Kanuk, Leslie Lazar (1997).Consumer Behavior, 6th Edition, Prentice-Hall of India.

Paper Code	540786	Credits: 2	Class Hours: -- hrs.
Paper Title:	Advanced Pattern Lingerie-Practical		

The lingerie and swimwear industry is expanding rapidly all over the world. This course covers how the market has changed over the past decade, today's and tomorrow's trends, and the major players. You'll get the chance to design your own capsule collection - for lingerie, nightwear, and swimwear - along with a suitable retail concept. This should be relevant to market trends, thoroughly researched, and include fabric and trim swatches.

The course includes a range planning, and a basic drawing workshop to give you the skills to put together your collection. The course will include Introduction to Lingerie, future and scope Lingerie Designer in the fashion industry. Women's standard size chart. Draft the Straight Basic Skirt, Draft the Basic Bodice Block and Sleeve. Strapless Bodice, The Tube Dress, Develop the One- piece dress block adapted from the Basic Bodice and skirt Blocks. Function of Full length petticoat, Draft the full length petticoat. Princess Line Pull-on Petticoat. Dartless Bodice Block, Vest or Singlet, The Bra Block and its variations, Basic Swimsuit Block. Lingerie Theme selection, Design a range of illustration and development. Lingerie Mood/research board & color board idea and discuss about the collection making. Lingerie illustration technique. (Ongoing work).

The Corset and Camisole Top, Draft The Waist Brief Block, Hip Brief Block, Bikini -Panties Block. French Knickers and its Variations, Sleep-Suit Top, Sleep-Suit bottom & corset. Final touch the Research /Mood board, color board & design analysis, design developments, illustration range, selection of design and collection making. Sewing/Lab work and Lingerie making.

Reference Books:

- Ann Hagar(2004) *Pattern Cutting for Lingerie, Beachwear and Leisurewear*, 2nd Edition ,John Wiley & Sons
- Desire Smith (2012) *Irresistible: The Art of Lingerie, 1920-1980*,Schiffer Publishing
- Mitchel Grey (1980) *the Lingerie Book*, 1st Edition

Paper Code	540788	Credits: 2	Class Hours: -- hrs.
Paper Title:	Aesthetics and Art		

What is aesthetics? Elements of aesthetics, discussed about beauty and relevant element need add more Introducing to the ART. Definition of art, typology of art, discussed details about ISM(Impressionism,Expressionism, Cubism, Surrealism, automatism, Symbolism, classicism, realism, Naturalism, Modernism, postmodernism, Abstract art,Renaissance,still life painting, Narrative art, portrait, history painting) -and the art forms, different media of art, applied art, different artists and their trends.

Relating to the philosophy of aesthetic; concerned with notions such as the beautiful and the ugly. Concerned with the study of the mind and emotions in relation to the sense of beauty. Having a sense of the beautiful; characterized by a love of beauty. Relating to, involving, or concerned with pure emotion and sensation as opposed to pure intellectuality. The philosophical theory or set of principles governing the idea of beauty at a given time and place Archaic. The study of the nature of sensation.

Reference Books:

- 1.Aesthetics: An Introduction to the Philosophy of Art (OPUS) 1st Edition
By Anne Sheppard (Author)
- 2.Greek Art and Aesthetics in the Fourth Century B.C. (Publications of the Department of Art and Archaeology, Princeton University)
By William A. P. Childs (Author)

3. Greek Sculpture: The Late Classical Period and Sculpture in Colonies and Overseas (World of Art) by John Boardman (Author)

4. Japanese Design: Art, Aesthetics & Culture

By Patricia J. Graham (Author)

5. Aesthetics: A Comprehensive Anthology 1st Edition by Steve M. Cahn (Editor), Aaron Meskin (Editor)

Year -4, Semester-8

Paper Code	540790	Credits: 2	Class Hours: -- hrs.
Paper Title:	Fashion Forecasting & Trend Analysis - Practical		

This course is follow-on from 'Introduction to Fashion Design' and wish to improve your skills. The course will help you develop your understanding of the principles of fashion design, with an emphasis on three-dimensional experimentation. You'll work with fabric directly onto dress mannequins and your experimental ideas will then be developed onto paper. This course will help you consolidate your understanding of fashion design. Communicating your design ideas in a creative and logical way.

The course includes: Development of primary and secondary research, Creating research sheets and mood boards, Color and fabric selection, Draping on the mannequins using fabric, Experimental design analysis, Refining design ideas for your chosen market, Exploring different art media, Range planning, Discovering how to build a fashion collection that is well balanced and innovative

The main focus of the course is to provide the understanding of marketing in local and international fashion market. This will include examining key trends and the effects they have on market, fashion competitors, how consumer trends impact on fashion sales, the history of fashion and an overall understanding of the structure of the international fashion industry.

Reference Books:

- Celia Joicey , Dennis Nothdruff (2013)*How to Draw Like a Fashion Designer*,1st edition, Thames & Hudson
- Jacky Bahbout and Cynthia Merhej*My Fashion Look book: Design Your Own Collection*,1st edition, Thames & Hudson.

- Mark Atkinson (2012) *How to Create Your Final Collection*, Pap/Cd edition Laurence, King Publishing UK.
- Linda Tain (2010) *Portfolio Presentation for Fashion Designers*, 3rd Revised edition, Fairchild.
- Sandra Burke (2006) *Fashion Artist: Drawing Techniques to Portfolio Presentation* 2nd Revised edition, Burke Publishing.
- Anette Fischer *Basics (2009) Fashion Design 03: Construction* UK.
- Evelyn L. Brannon and Lorynn R. Divita (2015) *Fashion Forecasting*, 4th Edition, Fairchild Books.

Paper Code	540792	Credits: 3	Class Hours: -- hrs.
Paper Title:	Design portfolio - Practical		

Your portfolio is the ticket to your future, so it needs to be right. It must play to your strengths, demonstrating the skills and knowledge you've built. We'll show you how to refine and strengthen the visual impact of your existing work, and make sure your portfolio does you justice.

This course will instruct the student in the presentation of their work in a professional portfolio for the purpose of employment. Selection of illustration for style and medium, types of portfolios available, and overall professional presentation standards will be covered. This is final semester course which is a combination of both Fashion design, Collection development (Mini Line) through a professional presentation. The course divided in to 2 Parts: Collection Development & Portfolio Development. In the 1st part of the student will apply their knowledge and skills in a practical focus through links with industry and concurrent fashion classes. They will explore garment design solution for specific contexts using historical, international and local recourses. They will formulate design solutions based on trend, forecasting and market research.

Student will integrate personal direction with fashion industry practice through the process of designing a mini line of clothing for a chosen market niche. In the 2nd part of this course students will critically analyze the balance between creativity and marketability required for success in the profession through a professional presentation. Students will create a comprehensive portfolio of work appropriate for their career directions.

Digital portfolio: This practical digital portfolio course will help you to organize and finalize what to include in your fashion portfolio, using existing work from your sketchbooks and designs. These will be transferred to digital layouts that are suitable for online and digital presentation. Using Adobe Photoshop, Illustrator and In Design software you will create a personal fashion digital

Reference Books:

Simon Seivewright (2012) *Basics Fashion Design 01: Research and Design*, Second Edition, AVA Publishing

Anna Kiper (2014) *Fashion Portfolio: Design & Presentation*, 2nd Edition, Batsford Ltd.

Kevin Tallon(2008) *Digital Fashion Illustration with Photoshop and Illustrator*, 2nd Edition ,Batsford Ltd.

Linda Tain (2010) *Portfolio Presentation for Fashion Designers*, 3rd Revised edition,Fairchild

Sandra Burke (2006) *Fashion Artist: Drawing Techniques to Portfolio Presentation*, 2nd revised edition, Burke Publishing.

Paper Code	540794	Credits: 2	Class Hours: -- hrs.
Paper Title:	Sustainable Design &Fashion - Practical		

Sustainable design, also known as eco-design, is part of the larger growing trend of creating more sustainable, environmentally friendly and ethical products. Whilst there is a lack of consensus over definitions, the environmental sourcing and manufacture of materials, reduction of carbon footprint, and safety of consumers and laborers, remain important.

- Origin and Purpose.
- Materials- Natural Materials, Artificial/synthetic materials, Recycled materials.
- Designers and Major Organizations.
- Barriers and Limitations.
- Future of Design and Fashion Industry.
- Sustainable labor costing in Design.

Book Reference:

1. Sustainable Fashion Supply Chain Management: From Sourcing to Retailing, in Springer's Series in Supply Chain Management, 2015. Tsan-Ming Choi, T.C. Edwin Cheng (Eds.)
2. Sustainable Fashion: Past, Present and Future by Jennifer Farley Gordon (Author), Colleen Hill
3. Sustainable Fashion and Textiles: Design Journeys by Kate Fletcher (Author)
4. ReFashioned: Cutting-Edge Clothing from up cycled Materials by Sass Brown (Author)