Module title	Textile Theory
Semester (semester1/semester2 if applicable)	Semester 2
Module credit number of units	5 ECTS
Assessment	100% Continuous Assessment

Module aims and objectives

This module is designed to give the learner a broad understanding of Textile Theory to advance the learners ability to identify fibres and fabrics and understand the importance of the application of appropriate material to design. Learners explore industry textile productions methods and processes to enable the appropriate selection of fabric for garment design. Learners are introduced to emerging textile trends such as performance fabrics and sustainability and issues pertinent to textile and garment manufacturing industries.

To work in the fashion industry learners need to strong understanding of textiles to support and advance career options. This module provides a general overview of the textile industry and its relationship with the fashion industry and the global environmental and social impact. It looks at the evolution since the early 1970's of the International Colour Authority (ICA) a global colour trend leader and Premier Vision the international textile trade fair, their influences on the global fashion industry, synthesising seasonal colour and fabric trends bringing coherence and structure the market as practised today. Textile Theory introduces the core elements of textiles and the factors that influence the cost, aesthetic, comfort, durability, care, safety, function and performance of textile products. Studying textiles is like learning a new language, many new terms and facts are learnt, learners study textiles from fibre to fabric, examine, test and explore fabrics to develop the ability to understand and identify fabrics. Learners are introduced to fibre theory and classification systems, the basic principles of yarn and fabric construction, fabric processing and finishing, fabric performance testing methods and procedures.

On successful completion of this module, the learner will be able to:
1. Work effectively in a team to identify fibres classification, yarns and fabrics types; describe their properties and characteristics, production, disposal or reuse and related sustainability issues.
2. Successfully communicate as a team how routine, aesthetic and special purpose finishes change fabric characteristics and end-use performance, and the subsequent environmental impact.
3. Select appropriate fabric for garment design; use standard fibre identification testing to classify fibres and identify the composition, construction, finishing methods, performance properties, testing methods and equipment.
4. Outline key elements of EU textile legislation and labelling requirements for garments and identify suitable garment care and composition labelling.

Module Content

CLASS PLAN/ MODULE CURRICULUM		
Semester 1 / Week no	**Topic No**	**Topic Name**
1.1	01	**Introduction to Module, MLO & Assignments** **Textiles Industry and Fibre Classification:** An introduction to the module in context to the textile industry and its close relationship to the fashion industry.
1.2	02	**Fibre classification:** What is a fibre, fibre classifications Natural, Synthetic and Regenerated, fibre properties and yarn forming?
1.3	03	**Natural, Synthetic and Regenerated Fibre Classifications**: identify the raw material, staple and filament fibres, methods of manufacturing, match properties with appropriate end uses, performance with market needs.
1.4	04	**Standard Fibre Identification**: testing methods to identify fabric composition.
1.5	05	**Yarn Construction:** basic principles of yarn construction; yarn processing; contemporary methods of yarn production.
1.6	06	**Fabric Construction Methods, Properties and Performance:** For standard and fancy; weaves, knits and non-woven fabrics types.
1.7	07	**Fabric Finishing, Processing & Applications:** How routine, functional finishes, aesthetic and special purpose finishes changes fabric characteristics and performance.
1.8	08	**Fabric Dying and Printing Processes:** Dye types, dyeing stages e.g. Yarn dying, cloth dyeing, piece dye and printing methods, processes and finishes.
1.9	09	**Assignment 1 Group Presentation:** Natural, synthetic and regenerated fibres.
1.10	10	**Fabric Performance Testing Methods:** fabric performance testing methods, equipment and standards.
1.11	11	**Sustainability:** issues related to production, use, care and disposal of textiles.
1.12	12	**Course Review and Assignment 2 Formative Feedback**

Reading lists and other information resources

Recommended Reading

- Hallett. C. 2014. Fabric for Fashion: The Complete Guide: Natural and Man-made Fibres. Edition. Laurence King Publishing.
- Hallett. C. 2014. Fabric for Fashion: The Swatch Book. 2 Edition. Laurence King Publishing.
- Baugh. G., 2011. *The Fashion Designer's Textile Directory: A Guide to Fabrics' Properties, Characteristics, and Garment- Design Potential,* Barron's Educational Series.

Supplementary Reading

- Bradley. Q., 2013.*Textile Visionaries: Innovation and Sustainability in Textile Design,* Laurence King Publishing.
- Kadolph, S.J., 2016a. B*asic Textiles Swatch Kit*, Boston: Prentice Hall.
- Kadolph, S.J., 2016b. T*extiles : basics*, Boston: Prentice Hall.