THE UNIVERSITY OF MANCHESTER
Programme Unit Specification

1. GENERAL INFORMATION

Title	Integrated Design
Unit code	MATS 20112
Credit rating	10
Level	3 (Year-2)
Semester(s)	2
Pre-requisite units	MATS 10006 Textile Materials; MATS 1008 Textile Testing.
Co-requisite units	
School responsible	School of Materials (Textiles & Paper Group)
Member of staff responsible	Dr. W.R. Kennon
Other staff involved	None

2. AIMS

The aim of the course is to enable Design students, Management students & Retail Students to understand the complex interaction of parameters which determine fabric properties and performance and which may be exploited in the design of textile products.

3. BRIEF DESCRIPTION OF THE UNIT

The following topics will be covered:

- Polymer properties
- Fibre structure and properties
- Friction
- Torsion and bending
- Yarn structure and packing
- Fabric structure and tightness
- Fabric thickness
- Stretch and recovery
- Shear
- Drape
- Warmth
- Moisture transfer
- Abrasion
- Pilling
- Snagging
- Holistic garment specification.

4. INTENDED LEARNING OUTCOMES *(include module-specific and contribution to programme)*

Category of outcome	*Students should be able to:*
Knowledge and understanding	• understand the interaction of parameters such as fibre diameter, bending and torsional moduli, yarn structure, twist factor, fabric structure and tightness, insomuch as they determine fabric properties and performance.
Intellectual skills	• relate complex physical parameters with the subjective aesthetic requirements of the textile marketplace.
Practical skills	
Transferable skills and personal qualities	• analyse market requirements and translate these into manufacturing specifications. • use cross-disciplinary group skills developed through the project work.

5. LEARNING AND TEACHING PROCESSES (*methods of delivery*)

Lectures and tutorials, problem-based learning, group work.

6. ASSESSMENT

Assessment task	Length	Weighting within unit (if relevant)
Unseen examination paper Assessed course work	90 minutes	50% 50%

Date of current version	27th January, 2009