THE UNIVERSITY OF MANCHESTER
Programme Unit Specification

1. GENERAL INFORMATION

Unit Title	Colour and Coloration
Unit code	MATS14052
Credit rating	10
Level	1
Semester(s)	2
Pre-requisite units	none
Co-requisite units	
School responsible	Materials
Member of staff responsible	Professor Chris Carr
Other staff involved	

2. AIMS

The programme aims to provide a basic knowledge and understanding of the nature of colourants, their performance and their application to textiles materials.

3. BRIEF DESCRIPTION OF THE UNIT

The unit will cover:
Nature of dyes and pigments;
Natural and synthetic dyes;
Fastness testing and evaluation of coloured garments;
Application of pigments to textiles;
Application of dyes to polyamides (wool & nylon), acrylic, polyester and cotton;
Processing equipment for colouration - fibres, yarn, fabric and garments.

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

Category of outcome	*Students should be able to:*
Knowledge and understanding	• explain the nature of dyes and pigments, and their application to textiles; • discuss the dyeing of the major types of textile materials (wool, nylon, polyester, acrylic and cotton) and the influence of their chemical composition and physical structure; • discuss the nature of dyeing fabric blends (polyester/ cotton & wool/ polyester) and the influence of each fibre on the combined process; • discuss the main types of dyeing equipment and their technical merits; • explain fastness performance criteria with regard to textiles.
Intellectual skills	• use knowledge to determine appropriate colouration techniques for textiles.
Practical skills	• ability to devise an experimental procedure to achieve specific colouration and performance.

Transferable skills and personal qualities	• ability to solve problems.. • ability to relate experimental findings to theoretical knowledge.

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

Lectures & tutorials

6. ASSESSMENT

Assessment task	Length	Weighting within unit (if relevant)
Unseen examination paper	Answer 5 questions from 8 in 3 hours	100%

Date of current version	September 09