THE UNIVERSITY OF MANCHESTER
Programme Unit Specification

1. GENERAL INFORMATION

Title	Colouration Technology
Unit code	MATS 20032
Credit rating	10
Level	3 (year 2)
Semester(s)	2
Pre-requisite units	MATS 10026
Co-requisite units	None
School responsible	Materials (Textiles & Paper Group)
Member of staff responsible	Dr Muriel Rigout
Other staff involved	Phil Cohen & David Kenyon (laboratory sessions)

2. AIMS

The programme unit aims to:
Provide a more detailed understanding of different colouration (dyeing and printing) processes by building on the knowledge acquired during the study of MATS10026, in particular the role of (correct) dye selection in the colouration of fibre blends that meet typical retailer fastness specifications.

3. BRIEF DESCRIPTION OF THE UNIT

The programme unit will build on the basic understanding achieved during the previous year. Individual topics which will be explored may include:

- Dyeing of blends, including polyester/cellulose blends, cotton/nylon blends, cotton/acrylic blends, micro fibre polyester/elastane blends etc.
- Printing topics, including traditional printing methods, digital printing, resist printing and discharge printing.
- Identification and replication of a dyed substrate.

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

Category of outcome	***On completion of this unit, students should be able to:***
Knowledge and understanding	• Ability to select commercially viable processes and products for dyeing fibre blends. • Ability to appreciate the development of sophisticated printed styles on textile materials.

	• Ability to recognise the function of constituents in a printing past and ink. • Development of laboratory skills to allow the replication of dyed or printed substrates to commercially acceptable limits.
Intellectual skills	• An ability to express mathematical and technological information with clarity, logic and accuracy. • An ability to work in a dyeing or printing environment in an independent and safe manner. • An ability to communicate knowledge of the subject area at an industrially relevant level.
Practical skills	• An ability to match the shade of a dyed or printed fabric and achieve high colour fastness.
Transferable skills and personal qualities	• An ability to work independently. • An ability to use laboratory and semi-bulk dyeing and printing facilities, including fastness equipment.

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

This unit is delivered by lectures (nominally 12 hours), supported by a related laboratory class of approximately 32 hours duration on colour related topics.

6. ASSESSMENT

Assessment task	Length	Weighting within unit (if relevant)
Unseen examination paper	2Q's from 4 in 1½ hrs.	80%
Laboratory report		20%

Date of current version	12/01/10