

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA IN TEXTILE DESIGNING
SEMESTER: V

Subject Name: **Computer Colour Matching**

Sr. No.	Course content
1.	<p>Colour Measurements:</p> <p>Perception of colour. Psychophysical parameters-hue, value and chroma, dyes terminology for colour physical concept of colour reflectance/transmittance spectra colour mixing laws types and source and their impacts on colour of object simultaneous contrast.</p>
2.	<p>Description of Colour:</p> <p>Introduction in brief of different colour systems. CIE system, CIE standard illuminates, CIE standard observer. Munsell system. CIE-UV system in brief. (No mathematical equation and other colour parameter calculation)</p>
3.	<p>Visual Colour Assumption In Textile:</p> <p>Viewing both colour tolerance chart, batch to batch variation – its impacts and remedies. Tolerance in textile whitened measurements.</p>
4.	<p>Colour Measuring & Instruments:</p> <p>Importance and brief study of spectro photo meter</p>
5.	<p>Computer Colour Matching:</p> <p>Brief outline of K.M. theory, single matching equation. Computer matching calculation for three dye combinations by computer colour matching systems.</p>
6.	<p>Concept of Metamerism:</p>

List of Practicals:

1. Dye testing
 - a. Reflectance measurement for dye materials.
 - b. Transmittance absorption measurement for colour solution.
2. Comparative study for relative strength measurement of different Dyes by above methods.
3. To study the shade variation by above methods.
4. Computer colour matching – Recipe prediction & preparation.
5. Whiteness/yellowness measurement.
6. Grey scale rating for fastness properties.

Reference Books:

1.	Instrumental Colour Measurement And Computer Aided Color Matching For Textiles	H.S.Shah R.S.Gandhi	Mahajan Book
2.	The theory of coloration of text.	Alan Johnson	