VEER NARMAD SOUTH GUJARAT UNIVERSITY

SCHEME OF TEACHING

B. E. IV (7^{TH} Semester)

Sr. No.	Courses	Course No.	Teaching Scheme L	T	P
1.	Computer Aided Designing & Computer Colour Matching {CAD/CCM}	TP - 701	3	-	3
2.	Technology Of Printing - II	TP - 702	4	-	3
3.	Technology Of Finishing - I	TP - 703	4	-	3
4.	Textile Testing - II	TP - 704	3	-	4
5.	Seminar	TP - 705	-	3	-
			14	**3**	**13**

Total teaching scheme is of 30 hours

VEER NARMAD SOUTH GUJARAT UNIVERSITY

SCHEME OF TEACHING

Scheme of Teaching and Examination BE IV
(7TH Semester) Textile Processing

Course	Course No.	Teaching Schedule			Examination Scheme						Grand Total Marks
					Theory Exam		Practical/Quiz/Viva Examination				
		Theory	Tutorial	Practical	Duration hours	Marks	Sem. End Exam	Tutorial Evaluation	Cont. Int. Evaluation	Total 8+9+10	7+11
1	2	3	4	5	6	7	8	9	10	11	12
Computer Aided Designing & Computer Colour Matching {CAD/CCM}	TP - 701	3	-	3	3	100	45	-	30	75	175
Technology Of Printing - II	TP - 702	4	-	3	3	100	45	-	30	75	175
Technology Of Finishing - I	TP - 703	4	-	3	3	100	45	-	30	75	175
Textile Testing - II	TP - 704	3	-	4	3	100	60	-	40	100	200
Seminar	TP - 705	-	3	-	-	-	-	75	-	75	75
TOTAL		**14**	**3**	**13**		**400**	**195**	**75**	**130**	**400**	**800**

VEER NARMAD SOUTH GUJARAT UNIVERSITY

SCHEME OF TEACHING

Semester - VII

B. E. IV (TEXTILE PROCESSING)

TP - 701, COMPUTER AIDED DESIGNING AND COMPUTER COLOUR MATCHING {CAD/CCM}

Teaching Scheme (No. Of Contact hr.)			Theory Exam		Practical/Quiz/Viva Exam		Grand Total
			Duration (hr.)	Marks	Sem. End Exam	Cont. Int. Evaluation	
Theory	Tut.	Pract.					
3	-	3	3	100	45	30	175

Theory

1. Brief discussion of colour science, perception of colour, colourmixing laws, metamarism, colour order systems, colour difference measurments etc
2. Colour Assesement in Textile- Visual and Instrumental colour assesement. Method of Visual assesement. Standard conditions for visual evaluation. Colourant formulation by Visual assessment.
3. Optical Theory for colour matching. Reflectance curves, Kubelk- Munk Theory etc.
4. Computer Colour matching-Study of various accessories like spectrophotometer, software & hardware systems etc in CCM. Theory and Process of finding the shade sorting, Dye strength & Tone, Recipe formulation, recipe correction, recipe for Redyeing etc. Assessment of whiteness and degree of yellowness.Advantages and limitations of CCM techniques.
5. Computer aided designing for printed fabrics. Scanning, colour separation, separation of printing, interface, combination etc.
6. Computer aided designing for Dobby & Jacquard fabrics.
7. Colour measuring instruments, microprocess controlled textile testing instruments and application in continuous monitoring in Textiles.

References :-

01.	Instrumental Colour Measurement & Computer Aided Colour Matching	H. S. Shah, -Mahajan Pub.,1990
02.	Computer Colour Analysis	Sule,-New Age international. New Delhi. Pub., 1997
03.	Watson-Textile Design & Colour	Z. Grosicki, - Newness Butterworths Pub., London., 7th E/D. 1975
04.	CAD in Clothing & Textiles	Winifred Aldrich, - 2nd E/D. Blackwell Science, Pub., 1994

VEER NARMAD SOUTH GUJARAT UNIVERSITY

SCHEME OF TEACHING

Semester - VII

B. E. IV (TEXTILE PROCESSING)

TP - 702, TECHNOLOGY OF PRINTING - II

Teaching Scheme (No. Of Contact hr.)			Theory Exam		Practical/Quiz/Viva Exam		Grand Total
			Duration (hr.)	Marks	Sem. End Exam	Cont. Int. Evaluation	
Theory	Tut.	Pract.					
4	-	3	3	100	45	30	175

Theory

1. **Screen Printing :** Preparation of Screens, Various methods of screen printing, Hand screen printing, Flat Bed, Rotary Screen Printing etc.Their advantages and disadvantages.
2. **Printing Of Polyester And Its Blends :**
   * Direct, Discharge and Resist styles of printing on polyester.
   * Direct style of printing of polyester - cellulose blended textiles.
   * Pigments Printing, Printing with mixture of dyes such as Disperse-Reactive, Disperse-Vat systems etc.
   * Discharge and Resist Prints on Poly/cotton blended fabrics
   * Carbonised / Brasso printing.
   * Printing of Cationic Dyeable Polyester fabrics.
3. Various styles and methods of printing of Nylon, Nylon/Polyester Blends, Polyester/Wool Blends, Acrylic, Polypropelene fabrics, etc.
4. Various methods of development & application of Transfer printing, Foam printing, Pearl & Metallic printing, Khadi printing etc.
5. Selection, Chemistry and application of auxilliaries used in printing.
6. Recent Developments in Printing Techniques.
7. Faults and Remedies in Printing..

References :-

01.	Technology Of Printing	SHENAI V. A.
02.	Technology Of Printing	Prayag. - Mrs. L. R. Prayag
03.	Printing Of Textiles By Direct & Transfer Techniques	Lee R. W.
04.	Printing & Dyeing Of Fabrics & Plastics	Ronald James

VEER NARMAD SOUTH GUJARAT UNIVERSITY

SCHEME OF TEACHING

Semester - VII

B. E. IV (TEXTILE PROCESSING) Semester - VII

TP - 703, TECHNOLOGY OF FINISHING - I

Teaching Scheme (No. Of Contact hr.)			Theory Exam		Practical/Quiz/Viva Exam		Grand Total
			Duration (hr.)	Marks	Sem. End Exam	Cont. Int. Evaluation	
Theory	Tut.	Pract.					
4	-	3	3	100	45	30	175

Theory

1. Historical background and Importance of Finishing
2. Classification of Finishing Process
   * Temporary, Semi Durable, Durable Finishes.
   * Mechanical & Chemical Finishes
3. Chemistry and Application of various finishing agents like Stiffeners, Weighting agents, Binders, Softeners, Latexes etc.
4. Durable and Semidurable finishes like wash-n-wear, antishrink (cross linking agents) waterproof and water repellant, Flame Retardant, Soil Release and Soil Repellency Finish, Delustring, Coating, Bonding, Lamination, Antipilling, Antistatic, Antimicrobial, Non slip, Anti picking and Anti snagging, Velvet finish, Foam finishing.
5. Finishing of knitted Textiles, Hosiery goods and Ready made garments.- Various Methods.
6. Chemical Modification Reactions, Graft Co Polymerisation, Perchmantization etc. - chemistry, methods & applications..
7. Recent development in Finishing Chemicals,Methods,Mechinaries etc.

References :-

01.	An Introduction To Textile Finishing	Marsh J. T.
02.	Technology Of Finishing	Shenai V. A.
03.	Textile Finishing	Prayag - Mrs. L. R. Prayag

SCHEME OF TEACHING

Semester - VII

B. E. IV (TEXTILE PROCESSING)

TP - 704, TEXTILE TESTING - II

Teaching Scheme (No. Of Contact hr.)			Theory Exam		Practical/Quiz/Viva Exam		Grand Total
			Duration (hr.)	Marks	Sem. End Exam	Cont. Int. Evaluation	
Theory	Tut.	Pract.					
3	-	4	3	100	60	40	200

Theory

1. Testing of Tensile Property of fibres, Yarns & Fabrics.
2. Fabric Thickness, Compresibility, resilience, rigidity, drape & other properties, associated with the fabric handle.
3. Cloth tear test & test for bursting strength & resistance to wear.
4. Measurement of yarn & sliver irregularity. Test for air permeability & Thermal Transmission,Water Repellency test, Shrinkage &Dyes Fastness Tests. Quantitative analysis of fibre mixture.
5. Application of Statistical method of the control of Quality in a textile product.

References :-

01.	Principles Of Textile Testing	Booth
02.	Textile Testing	Angappar
03.	Hand Book Of Textile Testing & Quality Control	Grover
04.	Evaluation Of Textile Chemicals	V. A. Sheani

SCHEME OF TEACHING

Semester - VII

B. E. IV (TEXTILE PROCESSING)

TP - 705, SEMINAR

Teaching Scheme (No. Of Contact hr.)			Theory Exam		Practical/Quiz/Viva Exam		Grand Total
			Duration (hr.)	Marks	Sem. End Exam	Cont. Int. Evaluation	
Theory	Tut.	Pract.					
-	3	-	-	-	-	75	75

Student will be given a topic for seminar. The student will have to carry out literature review. At the end of the semester he/she will have to submit his/her topic infront of an audience consisting of staff and students.