

GUJARAT TECHNOLOGICAL UNIVERSITY

B.E Semester: 3 Textile Technology

Subject Code 132905
Subject Name Basic Engineering in Textiles

Sr.No	Course contents
1.	Method study; Definition of method study; Techniques of method study; Process chart; Two Handed Motion chart; S charts.
2.	Work measurement; Definition of work measurement; Relation between measurement and method study; Methods of work measurement; Time study with stop watch; work sampling; standard time data. Calculations of work loads.
3.	Introduction to C.P.M., PERT
4.	Concepts of linear programming and O.R. techniques in relation to textile application including formulation of problems, solution of problems using Graphical methods, Simplex methods, etc., Transportation techniques and assignment problems.
5.	Mill steam generation. Coal fired boiler, package type of boiler, oil firing equipment, Distribution of steam to various departments; Economics of steam generation and distribution.
6.	General idea of Feed water treatments.
7.	Need for humidification and air conditioning, Different methods employed for humidification, Description of unit humidifiers air washer humidification plant, Unit air conditioners. Temperature and humidity requirements for different processes Control of humidity in the shops, maintenance of humidification plants.
8.	Maintenance: Importance of breakdown maintenance vs preventive maintenance. Importance of inspection and quality measurement in preventive maintenance.
9.	Distribution of services such as steam, water, compressed air, fire extinguishers etc.

Reference Books:

1. Industrial engineering and Management Science-Banga, Sharma,and Agarwal
2. Industrial engineering and Management- O.P.Khanna
3. Industrial engineering and Personnel Management- M.Mahajan
4. Operations Research –KantiSwarup,P.K.Gupta and ManMohan
5. Operations Research-Premkumar Gupta,D.S.Hira
6. Elements of Mechanical Engineering- Prof.P.S.Desai,Prof.S.B.Soni
7. Refrigeration and Air-conditioning-Dom Kundwar
8. Fluid Mechanics and Fluid Machinery- Dr.R.K.Bansal