

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E.in Rubber Engineering

Semester: I

Subject Name: **Cleaner Production in Rubber Industries**
(Inter Disciplinary Elective-I)

Subject Code: **714006**

Sr. No	Course content
1.	Introduction to Cleaner Technology (CT), Technology adoption for Cleaner Production (CP), concept of CP, Role of C.P. in survival and sustainable development.
2.	Cleaner Production: The basis, necessity and potentials for rubber industries, C.P. tools, techniques, methodology and applications.
3.	Cleaner Technology (CT), Criteria for Rubber Industry with case study for CT Criteria for Latex and Block Rubber Industry
4.	CT Options for Rubber Industry with case study for Latex and Block Rubber Industry, Production Process for Latex and Block Rubber, Cost Calculation of Economic Benefits due to Reduced Loss of Rubber Content
5.	Overview of Good House Keeping, Process Modification / Changes, Process Technology Innovations, Equipment Modification, Reuse and Recycle.
6.	A study on environmental concerns and corporate social responsibility in Indian tyre industry: Tyre industry profile, Indian standards, environment concerns, CP, Recycling of Tyres, CSR activities in different tyre companies of the industries, findings and recommendations, etc
7.	Environmental Issues of Natural Rubber Processing sector with case study of CP.

Note: Tutorials based on above topics.

Text Books:

1. Rubber products manufacturing technology by Anil, K.B., Malcolm, M.H., H.A., Benarey, et al. (1994) Marcel Dekker, Inc.
2. Environmental Impact Assessment report for Xuan Lap latex rubber processing company; Dong Nai province, Vietnam Applied Technique and Production Company (2004).

Reference Books:

1. Cleaner Production Worldwide, 1993, United Nations Environment Programmed, Industry and Environment, Paris, France, 1993
2. Cleaner Production: Training Resource Package, UNEP IE, Paris, 1996