

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.E. SEMESTER : VIII**  
**ENVIRONMENTAL SCIENCE AND ENGINEERING**

**Subject Name: Environmental Planning And Management**

**Subject Code:183701**

Teaching Scheme				Evaluation Scheme			
Theory	Tutorial	Practical	Total	University Exam(E)	University Exam(P)	Mid Sem Exam(Theory) (M)	Practical (Internal)
3	2	0	5	70	30	30	20

Sr No	Course Contents
1	Introduction: environmental and sustainable development, concept of carrying capacity, relation among quality of life, carrying capacity and resource utilization.
2	Engineering Methodology in Planning and its Limitations: carrying capacity based short and long term regional planning.
3	Environmental Protection: economic development and social welfare consideration in socio-economic developmental policies and planning. Total cost of development and environmental protection cost. Case studies on regional carrying capacity planning.
4	Engineering Economics: value engineering, time value of money, cash flows, budgeting and accounting
5	Cleaner Technologies: introduction and their role in environmental protection
6	Environmental Quality Management: total quality management (TQM) and ISO 14000 Series of Standards. Introduction and importance of environmental audit in environmental management

**TEXT BOOKS:**

1. "Planning and Design of Engineering Systems" by Danoy and Warner, Unwin Hyman Publications.
2. "ISO 14000 Environmental Management" by Goetsch and Staley, Prentice Hall NJ.
3. "Environmental Protection" by Chanlett, McGraw Hill Publication, USA.
4. "Environmental Quality Management" by B.N. Lohani, South Asian Publications.
5. "Environmental Health and Safety Auditing Handbook" by Lee Harrison, McGraw Hill Inc., USA.