

ENE-306: Fundamentals of Environmental Engineering

Credit Hours: 3-0

Pre-requisites: None

Course objective

- To impart knowledge of environmental pollution, its control considering the national and international standards, and its impact on environment and ecology.
- Pollution concept, types of pollution
- water pollution control technologies
- water treatment technologies, soil pollution control technologies

Course Contents

- i. Introduction to environment and ecology
- ii. Environmental policy and standards
- iii. Environmental Monitoring (Air, Water & Soil)
- iv. Objectives of sampling and monitoring programme
- v. Design and types of samples
- vi. Pre-sampling requirements/information
- vii. sampling and design purposes
- viii. Air pollution control technologies
- ix. noise pollution control technologies
- x. Biotechnology for environment
- xi. industrial pollution control; Occupational safety devices
- xii. Principles and purposes of IEE and EIA and its significance for the society
- xiii. Cost and benefits of EIA
- xiv. Main stages in EIA process
- xv. Public consultation and participation in EIA process. EIA methods and techniques for impact prediction and evaluation

Course Outcomes

After taking this course, student vision regarding the impact of chemical processes on the environment should be improved.

Recommended Books

- Cheremisinoff, "Handbook of air pollution prevention and control", 2002.

- P.Venugopala,"Textbook of Environmental Engineering" PHI Learning Pvt. Ltd, 2002
- Gilbert M.Master and Wendell P, Ela, "Introduction to Environmental Engineering and Science"3rd Edition, 2007