

Course Type	Course Code	Name of Course	L	T	P	Credit
ESO	NPEE202	Petroleum Environmental Management	3	0	0	3

Course Objective

The objective of the course is to provide the introductory knowledge related to the Oil and gas field environment, standard rules and regulation necessary for field operations

Learning Outcomes

Upon successful completion of this course, students will:

Understanding the basics concepts of the personal safety issues and prevention against possible Hazards in oil and fields. Capabilities to have basic knowledge of impact on eco-system related to the oil and gas field pollution and disposal of field wastes.

Unit No.	Topics to be Covered	Lecture Hours	Learning Outcome
1	Introduction to Petroleum Oil field hazards	4	Understanding of oil hazards
2	Oil field safety rules and regulations	4	Knowledge of safety rules
3	Oil mines regulations and other environmental legislations.	4	Knowledge of operational regulations.
4	Health Hazards in Petroleum installations.	3	Familiarity of health hazards in oil field.
5	Gas detection system and fire detection system in oil field installations	3	Understanding of gas and fire detection.
6	Fire detection and suppression systems in oil fields	4	Familiarity with the firefighting systems
7	Environment concepts, impact on eco-system, air, water and soil.	4	Elementary knowledge eco balance in environment.
8	The Impact of Drilling & Production Operations on Environment, Environmental Transport of Petroleum wastes.	4	Basic knowledge of Environmental impact by oil field operations.
9	Offshore environmental studies, offshore oil spill and oil spill control,	4	Elementary knowledge offshore environments.
10	Waste treatment methods, waste Disposal method, Remediation of contaminated sites.	4	Knowledge of waste disposal in oil and gas fields.
11	Environmental impact assessment.	4	Basics of EIA
Total contact hours:		42	

Text Book:

- i. Environmental Control in Petroleum Engineering by John C Reis
- ii. Environmental Technology in the Oil Industry by Orszulik, Stefan

Reference Book:

- i. Fire Protection Manual for Hydrocarbon Processing plants by Charles H. Vervalin
- ii. Environmental management in Petroleum Industry by S. K. Wahi
- iii. Safety and Health in the oil and gas Extractive Industries-Graham & Trotman Ltd., London for the commission of European Communities