

APPLIED CHEMISTRY (BS-ADP 7th Semester)

Module Code:	Chem-429
Module title:	Fuel Chemistry
Name of Scheme:	BS-ADP 7th Semester
Department:	School of Chemistry
Faculty:	Science
Module Type:	Compulsory
Module Rating:	2 credits

OBJECTIVES

The students will learn about the existing energy resources; their processing, refining and utilization.

SYLLABUS OUTLINE:

1. **Processing of Crude Oil:**
Brief description of origin of petroleum, Petroleum processing like Desalting, Fractional distillation; Refining, cracking; reforming, isomerization; alkylation and finishing processes (Doctor's Sweetening and Merox processes)
2. **Coal Chemicals & Fuel Gases:**
The destructive distillation of coal, coking of coal distillation of coal tar; Liquid Fuels: Hydrogenolysis Natural gas; Coal Gas: Water Gas; Liquefied Petroleum Gases; LNG; Producer gas.

RECOMMENDED BOOKS:

1. Applied Chemistry, Haq Nawaz Bhatti and Muhammad Salman, 2017, Caravan Book Publisher, Pakistan.
2. Petroleum Refining Technology, Ram Parsad (2002).
3. Industrial chemistry, B. K. Sharma, Krishna Prakashan Media (P) Ltd., Ed-15 (2006).
4. Shereve's Chemical Process Industries, 5th Ed.1975, by G.T.Austin, McGraw Hill Book Co. New York.