

20PEB421					HYDROCARBON CONTRACTS AND ASSET MANAGEMENT					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hours/Week	Theory			Practical		Total Marks
					MS	ES	IA	LW	LE/Viva	
3	0	0	3	3	25	50	25	-	-	100

COURSE OBJECTIVES

- Demonstrate legal principles of oil and gas contracts
- Illustrate Marketing strategies in Oil industry
- Imbibe Portfolio Management skills in graduates
- Develop skills to address dispute in oil business

Unit I

Hours: 9

Life cycle of Petroleum Project, Fiscal System in hydrocarbon industry (Progressive, regressive fiscal policy tax and non-tax components of Fiscal Policy), Basic elements of Contracts, Basic terminologies of contract and legal. Basics of Upstream and Downstream regulatory Laws and Policies, Fundamentals of Oil and gas accounting: Capex, Opex, Cost classification, Depreciation depletion and amortization (DDA), Cash flow, internal rate of return, Net Present value

Unit II

Hours: 12

Upstream Agreements (Concessionary, Production sharing, Risk sharing,), Indian policy on Hydrocarbon Exploration and Licensing Policy (HELP). Drilling Contracts, Farm-in and Farm-out, Joint ventures, Comingling allocation and attribution agreement, Gas sale and supply agreement. LNG Agreement

Unit III

Hours: 8

Hydrocarbon trading-Oil trading, Physical and Paper; Crude oil Markets- Spot, Barter, Future and forward. Oil pricing mechanism, short term and long term Oil Pricing.

Unit IV

Hours: 10

Asset Integrity Management Introduction to concept of Asset Management& Asset Integrity Management, The Asset Management System – Asset Management Policy – Asset Management Strategy – (Strategic) Asset Management Plans – line of sight; International standard on Asset Management: ISO 55000; Risk & Risk Assessment Approaches Used for Asset Integrity Management; Identification & assessment of risk; Risk management: using the risk matrix, risk register & hazard log; Risk Based Maintenance Deterioration: the way assets could fail the seven steps of Risk Based Maintenance (RBM) / Reliability Centred Maintenance (RCM) incl. Failure Mode Effects & Criticality Analysis; Failure behaviour of onshore & offshore systems.

COURSE OUTCOMES

On completion of the course, student will be able to

- CO1- Master and comprehensively understand the legal principles of oil and gas contracts
- CO2- Understanding in depth licensing, production sharing and service contracts
- CO3- Identifying the risk factors and managing those risks through effective contractual clauses
- CO4- Know the relevant legal and regulatory frameworks that are in the oil and gas industry
- CO5- Learn how to use appropriate contractual clauses in oil and gas contracts
- CO6- Appreciate the best dispute resolution methods and how it will apply it in different scenarios

TEXT / REFERENCE BOOKS

1. Shippey, K. C. (2009) A short course on international Contracts, 4 th Ed. World Trace press.
2. Tordo, S (2007) Fiscal System in Hydrocarbons: design issues. The World Bank
3. Ministry of P & G (Government of India) Model Production Sharing Contracts and HELP,
4. Johnston, D (1994) International petroleum fiscal system and Production sharing contracts, Penn Well books
5. Wright, C. J and Galloway, R. A. (2008) Fundamentals of Oil and Gas accounting 5th Edition Pennwell
6. Millar, M. P (2015) Asset Integrity management handbook
7. Jennings Anthony (2002) Oil and Gas Exploration contracts
8. Jennings Anthony (2002) Oil and Gas Production contracts
9. David M. R. (1999) Oil and Gas infrastructure and mid-stream agreement
10. David M. R. (1999) Natural gas Agreement

END SEMESTER EXAMINATION QUESTION PAPER PATTERN

Max. Marks: 100

Exam Duration: 3 Hrs.

PART A: Part A/Question: <Short Notes, Problems, Numerical>

20 Marks

PART B:<Justification, Criticism, Long answers, Interpretation >

80 Marks