

Course Code ESE-813	Credit Hours (Th-Pr) 3-0	Energy Economics and Policy (Elective)	Contact Hrs/Week (Th-Pr) 3-0	Total Allocated Periods (Th-Pr) 45-0
------------------------	--------------------------------	---	------------------------------------	--

Course Outline:

This course is tailored for the student desiring an understanding of the relationship between the energy sector and the wider economy. It covers additional topics in Petroleum Economics, with emphasis on tracing the macroeconomic impact and implications of oil and gas sector decisions. Topics to be covered include oil price shocks and the global economy, the problems associated with managing oil wealth, transparency, resource based industrialization, depletion policy and environmental issues.

Eligibility Criteria: B.E (Chemical, Mechanical, Electrical, Environmental and Materials)

Recommended Text Books

S. No	Title	Author(s)	Assigned Code
1.	<u>Crossing the Energy Divide: Moving from Fossil Fuel Dependence to a Clean-Energy Future</u>	Robert U. Ayres, Edward H. Ayres	RE
2.	<u>Investing in Energy: A Primer on the Economics of the Energy Industry (Wiley Global Finance Executive Select)</u>	Gianna Bern	GB
3.	<u>Edison to Enron: Energy Markets and Political Strategies</u>	Robert L. Bradley	RB
4.	<u>The Economics of Energy and the Production Process: An Evolutionary</u>	Guido Buenstorf	GB

	<u>Approach</u>		
5.	<u>Environmental and Resource Economics</u>	Michael Common	MC

Course Objectives:

The main objective is to provide students with a sound understanding of:

- How energy (oil and gas) drives the global and local economy, and
- The challenges of transformation beyond the dominance of energy sector.
- Climate change mitigation and adaptation and energy

Learning outcome:

The successful student should have the analytical tools to serve competently in both the public and private sector. A graduate should be able to provide analysis of changes in the sector and advise his or her employer about the implications for the wider economy or on the institution in which he or she works.

Topics Covered

No.	Topics	Text Books	Allocated Periods
1.	<p>Oil price shocks and the Global Economy Impact of price shocks on major economies. Impact on oil importing developing countries.</p> <p><i>Students should be able to;</i> Classify and explain the types of oil price shocks Analyze the impact on different economies Critique the policy responses</p>	RE +GB	10

No.	Topics	Text Books	Allocated Periods
2.	<p>Petroleum and the Macro-economy</p> <p>Economic models of resource based economies</p> <p>Measuring Economic Impact.</p> <p>Oil and Gas Taxation Regimes.</p> <p>Students should be able to;</p> <p><i>Compare the various theoretical perspectives on resource based economies</i></p> <p>Explain the views of the role of resources in development.</p> <p>Analyze the impact on different economies</p>	RE+GB+MC	8
3.	<p>Challenges of Macroeconomic management in oil and gas exporting Countries</p> <p>Concepts and Characteristics.</p> <p>Dealing with resource rents: Is the Dutch Disease inevitable?</p> <p>Natural Resource Funds: Solution or Problem</p> <p>Students should be able to;</p> <p>Compare the economic management strategies of Indonesia, Trinidad and Tobago and Mauritania.</p> <p>Explain the concepts of the resource curse thesis and Dutch disease Analyze the approaches of economies viewed as escaping the curse</p> <p>Critique the use of Heritage Funds</p>	RE +GB	8

No.	Topics	Text Books	Allocated Periods
4.	<p>Energy sector and Industrial Strategy</p> <p>Production possibilities from gas. Resource based industrialization revisited. Creating sustain ability from oil and gas: options and constraints.</p> <p>Students should be able to;</p> <p>Explain the concept of resource based industrialization Appraise the history and significance of national ownership of energy resources in Trinidad and Tobago Critique the policy of Local content and participation</p>	RE +GB	10
5.	<p>Energy Policy Issues</p> <p>Energy Independence and Depletion policy. Environmental Issues: Climate change and the energy sector Kyoto Protocol Governance Issues; Extractive Industries Transparency Initiative. Alternative Energy</p> <p>Students should be able to;</p> <p>Explain the concepts of depletion, Energy dependence, Peak oil</p> <p>Evaluate the Extractive Industries Transparency Initiative</p> <p>Analyze the impact of t he energy sector on climate change</p> <ul style="list-style-type: none"> ○ Critique the impact adaptation and mitigation strategies on energy and the economy 	RE +GB	9