



**UNIVERSITY of GUYANA**  
**Institute for Energy Diplomacy**

**EXECUTIVE COURSE IN ENERGY MARKETS**

Course Codes: IED5001 and IED5001E

**June 2021**

**GENERAL DESCRIPTION**

This executive course provides fundamental knowledge of energy market economics. The aim is to provide participants with an energy-specific toolkit, which will allow them to understand the broader economic concepts and issues in this sector. Areas covered include energy demand, oil and refined products, natural gas, electricity and renewables.

The Executive Course is an integral part in facilitating the Institute's mission to inform and enrich the understanding, policies and performance of Guyana's energy market by pursuing excellence in its advanced multi-disciplinary training on areas of energy. It explores the economics of fossil fuels and renewable energy: an axiomatic intellectual ingredient to sustainable development and to tackle the sui generis challenge of making Guyana's energy clean while developing our newfound fossil fuel resource.

**COURSE DESIGN, DELIVERY AND ASSESSMENT BY:** Michael Tamvakis, Professor of Commodity Economics & Finance, City, University of London.

Prof Tamvakis has authored two seminal books on Commodity Trade and Finance published by Routledge. He holds a PHD from City, University of London and has served as the Associate Dean of Undergraduate Programmes. Prof Tamvakis has a wealth of energy experience from his employment as the University's Director for the world-respected MSc in Shipping, Trade and Finance and MSc in Energy, Trade and Finance.

**LEARNING OUTCOMES**

Upon completion, participants will be able to:



## UNIVERSITY of GUYANA

- Compare the key supply characteristics of two major hydrocarbons (oil and gas), such as geology, extraction, transformation.
- Understand the economics of renewable energy generation and distribution and appraise their effect on the energy mix, especially with regard to electricity generation.
- Inspect how supply and demand factors interact to formulate prices for the various sources of energy and appraise how the interaction of these factors may affect prices in the future.
- Assess how policy issues, such as supply security and climate change, can influence the pricing of, and investment in the variety of energy sources available.
- Record the vocabulary necessary in energy business, including all relevant terminology, measurement units and conversions.
- Synthesise demand and supply factors, both economic and geopolitical, to compare what drives the various markets in both exhaustible and renewable energy sources.
- Use this analysis to assess the future developments in the energy business.

### **COURSE CONTENT**

Remote live lectures via Zoom with additional material available on Moodle

**Energy Demand Overview**  
**Oil and Refined Products**  
**Natural Gas**  
**Power and Renewables**

### **ENTRY REQUIREMENTS**

Participants are expected to have an undergraduate degree or at least 5 years' experience in a related field.

### **CERTIFICATE TYPE**

**Assessment-Based Certificate: 4 Postgraduate Credits**

The assessment-based certificate in Energy Markets represents 40 learning hours.



## UNIVERSITY of GUYANA

Instructor(s) Contact Hours: 14

Self-Directed Study Hours: 21

Tier- 1 Self-Directed Study (slides, notes and required reading): 18

Tier-2 Self-Directed Study (recommended videos and additional reading): 3

Forum Engagement Hours: 2

Exam Preparation (Quiz) Hours: 1

Exam Hours: 2

### *Duration*

The course will be 2 weeks in length. It will be delivered on the Friday and Saturday of Week 1 and Sunday, Monday and Thursday of Week 2. The 100% weighted 2-hour final exam will be administered on Saturday of Week 2.

### *Evaluation and Grading Scheme*

Participants to the exam option will be evaluated by a 100% weighted 2-hour final exam administered via Moodle. Participants will be eligible for an assessment-based Executive Course Certificate in Energy Markets if they score 45% or more based on the grading scheme below:

A = 75% - 100%

B = 65% to 74%

C = 55% to 64%

D = 45% to 54%

F = Less than 45%

### **Certificate of Participation**

Participants to the no exam option will be eligible for an Executive Certificate of Participation in Energy Markets.



## UNIVERSITY of GUYANA

### *Duration*

The course will be 2 weeks in length. It will be delivered on the Friday and Saturday of Week 1 and Sunday, Monday and Thursday of Week 2.

### **RECOMMENDED READING LIST**

- Lecture notes, papers, and cases
- Boyle, G. (2018) *Renewable Energy: Power for a Sustainable Future*. 4<sup>th</sup> ed. Oxford University Press, ISBN 9780198759751
- Dahl, C. A. (2015) *International Energy Markets: Understanding Pricing, Policies and Profits*. 2<sup>nd</sup> ed. PennWell, ISBN 9781447174684
- Leffler, W. (2020) *Petroleum Refining in Nontechnical Language*. 5<sup>th</sup> ed. Pennwell, ISBN 9781593702809
- Raymond, M. & Leffler, W. (2017) *Oil & Gas Production in Nontechnical Language*. 2<sup>nd</sup> ed. PennWell, ISBN 9781593703868
- Tamvakis, M. (2015) *Commodity Trade and Finance*. Routledge Informa Law, ISBN 978-0-415-73245-1