

# Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore Shri Vaishnav Institute of Social Sciences, Humanities and Arts Choice Based Credit System (CBCS) in Light of NEP-2020 Generic Elective UG students (B.Tech VII Semester)

COURSE CODE	CATEGORY	COURSE NAME	TEACHING &EVALUATION SCHEME								
			THEORY			PRACTICAL					
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*	L	Т	P	CREDITS
GUECO201	Generic Elective	Energy Economics and Policy	60	20	20	0	0	3	0	0	3

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit.

### **Course Educational Objectives:**

**CEO1**: To understand the concept of Energy Economics.

**CEO2**: To enable students to identify the demand for Energy.

**CEO3**: To understand the supply sources for energy.

**CEO4**: To analyze Energy policies and regulations of India.

**CEO5**: To exemplify the Energy economics and development.

#### **Course Outcomes:**

#### Students will be able to:

**CO1**: Define basic concepts of Energy Economics

CO2: Access the demand for energy

**CO3**: Comprehend the supply sources of Energy.

**CO4**: Articulate various Energy policies and regulations in India.

**CO5**: Deduce the Energy economics and development.

#### **Contents**

#### **UNIT I: Introduction to Energy Economics**

Definition of Energy, Classification of Energy, Concept of Energy Economics; Nature and Scope of Energy Economics, Law of Thermodynamics: Energy, Economy and Environment Interactions.

#### **UNIT II: Demand of Energy**

Demand of Energy, Understanding and Analyzing Energy Demand, Overview of Energy Demand Decision, International and National Demand for Energy, Causes and Impact of Increase in Demand for Energy.

<sup>\*</sup>Teacher Assessment shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.



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### **UNIT III: Supply of Energy**

Supply of Energy, Sources of Energy; Renewable and Non- Renewable Energy, Trend and Patterns of Energy Production, Social, Economic and Environmental Effects of Energy Production.

# **UNIT IV: Energy Policy and Regulation in India**

National Policy on Biofuels-2018: Ethanol Blended Petrol (EBP) Programme, International Solar Alliance, National Hydrogen Mission

#### **UNIT V: Energy and Economic Development**

Importance of Energy in Development and Growth, Role of Energy in Achieving Sustainable Development Goals. Future Challenges and Opportunities in India's Energy Sector

## **Suggested Readings:**

- 1. **Energy Economics**: Concepts, Issues, Markets and Governance by Subhes C. Bhattacharyya 2011.
- 2. **Energy Economics** by Peter M. Schwarz.
- 3. **Energy Economics**: Markets, History and Policy" by Roy L. Nersesian 2016.