

## INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI

## भारतीय प्रौद्योगिकी संस्थान तिरुपति

1.	Title of the course	Introduction to Energy and Environmental Policy
2.	Course number	HS510L
3.	Structure of credits	3-0-0-3
4.	Offered to	PG
5.	New course/modification to	Modification To HS5030/21
6.	To be offered by	Department of Humanities and Social Sciences
7.	To take effect from	July 2022
8.	Prerequisite	Nil

- 9. **Course Objective(s):** To introduce various issues associated with energy and environment at both national and international levels. To introduce different tools/ instruments to solve these complex problems at regional, national and global levels.
- 10. **Course Content:** Environmental issues and policies; Environment and economic development; Market failure: externalities, common property resource and public goods; Environmental policy instruments: uncertainty and choice of policy instrument; Price and quantity controls; Efficiency without optimality: charges and standard approach; Marketable emission permits for environmental protection; Taxes versus subsidies; Regulatory compliance and enforcement; International environmental issues: economics of climate change and international and regional negotiations; Energy and economy; Economics of non-renewable energy sources: coal, petroleum and natural gas; Economics of renewable energy supply: drivers of renewable energy and economics of biofuels; Energy demand analysis.

## 11. Textbook(s):

- 1. Bhattacharyya S C, *Energy Economics: Concepts, Issues, Markets and Governance*, 2nd Edition, Springer-Verlag London (2019).
- 2. Tietenberg T H, Environmental and Natural Resource Economics, 5th Edition, Routledge (2018).

## 12. Reference(s):

- 1. Hanley N, Shogren J F and White B, *Environmental Economics: In Theory and Practice*, 2nd Edition, Palgrave Macmillan (2006).
- 2. Kolstad C D, *Intermediate Environmental Economics*, 2nd Edition, Oxford University Press (2012).
- 3. Kolstad C D, Environmental Economics, 2nd Edition, Oxford University Press (2010).
- 4. Ristinen R A, Kraushaar J J and Brack J, Energy and the Environment, 3rd Edition, Wiley (2016).