



ENERGY ECONOMICS AND POLICY

PROF. SHYAMASREE DASGUPTA

Department of Humanities and Social Sciences
IIT Mandi

PRE-REQUISITES : Any foundational course in Economics

INTENDED AUDIENCE : Primarily the graduate students working in the area of energy economics and energy policy domain. This course will also be useful for general audience

INDUSTRIES APPLICABLE TO : Power sector; energy consulting firms; renewable energy production units, policy makers

COURSE OUTLINE :

Similar to many other branches of applied economics, energy economics emerged with the realization that “energy” is a scarce resource. This course covers the economic principles that guide energy related behavior of both the producers and the consumers of energy and the policy regime that has emerged to govern it. The course has four building blocks: understanding energy as a scarce resource, various aspects of energy demand and supply with a focus to policies that are in place to promote renewable energy supply and finally, a much needed discussion on interaction between energy, environment and climate change. The course aims at broadening the vision of students while making any energy related decision as a technology developer, energy manager, entrepreneur, policy maker, researcher in future or simply for personal energy use in day to day activities.

ABOUT INSTRUCTOR :

Prof. Shyamasree Dasgupta is an Assistant Professor at the School of Humanities and Social Sciences in Indian Institute of Technology Mandi. She is an economist by training. Her teaching and research interest remains in the area energy, environment, climate change and sustainable development. She obtained Ph.D and M.Phil in Economics from Jadavpur University, Kolkata, India with SYLFF Fellowship. She is a member of several active academic/research networks including International Association of Energy Economics, Indian Society for Ecological Economics, The Indian Econometric Society etc. She was a contributing author in the Industry chapter of IPCC AR 5.

COURSE PLAN :

Week 1: Energy as a resource; classification, measurement and accounting

Week 2: Energy Demand-Part I- Analyzing past, present and future demand

Week 3: Energy Demand-Part II - Demand Side Management, policies and behavioural issues

Week 4: Energy Supply- Part I – Economics and policies of non-renewable energy supply

Week 5: Energy Supply- Part II – Economics of electricity supply and renewable energy and related policies

Week 6: Energy Market

Week 7: Special topics on energy, environment and climate change - Part I

Week 8: Special topics on energy, environment and climate change - Part II