

Lecture Plan
Department of Planning, School of Planning and Architecture, Vijayawada

Name of Course: Energy Studies (MPEP306)

Programme & Sem: **Master of Environmental Planning & Management (PG), Semester Three**
Course Duration: July 16 to Nov 14, 2018

Course Coordinator: Vamsi Deepak TSV., Assistant Prof., Dept. of Planning
Number of Credits: 03
Total Periods/Week: 03 (See Time Table for details)
Internal Assessment: 50 (minimum pass marks 50%)
End Evaluation: 50 (minimum pass marks 50%) – Written Exam.
Total Marks: 100 (to be converted to CGPA credit pattern as per regulations)

Subject Objective: Introduce the fundamental concepts of quantification based assessment of energy consumption

Week	Lecture / Session Topic (Teaching-Learning Objective aimed)	Session Mode (Optional)	References / Suggested Readings
Week 1 (July 16-20)	Principles of Energy: Sources and Consumption; Energy Demand and Supply; Quantification of resource consumption	Orientation & Lecture	1. Ercosun O Y (2012): Green and Ecological technologies for Urban Planning: Creating smart cities. IGI Global 2. Khalil H and Khalil E. (2015): Energy Efficiency in the Urban Environment, Taylor and Francis, London
Week 2 (July 23-27)	Patterns of Consumption, Relating Energy consumption patterns with sectors - Residential, Commercial, Transport etc	Lecture, and Interactive Session – Role Playing - Ref 1, 2	
Week 3 (July 30-Aug 03)	Cluster and Group based Energy use; Energy efficiency and ISO; Introduction to ISO	Lecture. 1) Ref 1	
Week 4 (Aug 06 - 11)	ISO 140000 and its Planning implications, Case study of an ISO certified Industry	Lecture. 1) Ref 1 (Chapter 4), 2	
Week 5 (Aug 13 -17)	Environmental and Financial benefits of ISO; Cluster based Environment Management approach	Lecture. 1) Ref 1, 2	
Week 6 (Aug 20 - 24)	Internal Assessment – 1 : Time bound Test		

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Week 7 (Aug 27 - 31)	Group Environmental Management Systems; Monetary Valuation Techniques	Lecture	<ol style="list-style-type: none"> 1. Shepherd W and Shepherd D (2014); Energy studies, Imperial College Press, London 2. UN Habitat @ ICLEI (2009); Sustainable Urban Energy Planning: A Handbook for Cities and Towns in Developing countries
Week 8 (Sept 01- 09)	Field Work for Planning & Design Studio		
Week 09 (Sept 10 - 14)	Cost Benefit Analysis, Natural Resource Accounting, Pricing, Non Use Value	Lecture	Shepherd W and Shepherd D (2014); Energy studies, Imperial College Press, London
Week 10 (Sept 17 - 21)	Techniques of Monetary evaluation/valuation methodologies; Energy Audit	Lecture	UN Habitat @ ICLEI (2009); Sustainable Urban Energy Planning: A Handbook for Cities and Towns in Developing countries
Week 11 (Sept 24 - 28)	Internal Assessment – 2: Mid Sem Examination		
Week 12 (Oct 01 - 05)	Conservation Issues, Overview of Clean Development Mechanism and Carbon Credits	Group Interactive Session & Lecture.	<p>Ercosun O Y (2012): Green and Ecological technologies for Urban Planning: Creating smart cities. IGI Global</p> <p>Khalil H and Khalil E. (2015): Energy Efficiency in the Urban Environment, Taylor and Francis, London</p>
Week 13 (Oct 08 - 12)			
Week 14 (Oct 15 - 19)			

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Week 15 (Oct 22 - 26)	Internal Assessment – 3 : Time bound Open Book Test		
Week 15 (Oct 29 - Nov 02)	Lifecycle Analysis, Carbon Trading/GHG Emissions, Energy with respect to Smart Cities, Solar City Mission, Renewable Energy concept, Green Cities and Energy Footprint		<ol style="list-style-type: none"> 1. UNDP (2006) "A Guide To Strategic Environmental Assessment". UNDP, NY. (BOOK) 2. Fischer B. T. (2007) "The Theory and Practice of SEA – Towards a more systematic approach" "SEA & Land Use Planning : An International Evaluation", Edited by Jones C. et. al. (2005).
Week 16 (Nov 05 – Nov 09)	Overall Revision of all Topics in EIA Techniques		
Nov 12 - 14	Finalisation & Display of Internal Assessment and Attendance (Cum. - 100%)		

Note:

1. Any other closed holidays as declared by SPAV shall supercede the above lecture plan. Holidays shown above may alter as per Notice from time to time.
2. Assessment Sessions may be re-scheduled, with prior intimation.
3. Reading lists provided is not exhaustive and is subject to addition – students are advised to follow progression of class to keep abreast of the new reading lists, if any.