

SARDAR PATEL UNIVERSITY
Programme: M.Sc (Home Science)
Subject: Family Resource Management
Semester: III
Syllabus with Effect from: June - 2013

Paper Code: PH03EFRM02	Total Credit: 4
Title Of Paper: Fuel Technology & Environment Management	

Unit	Description in detail	Weightage (%)
I	Sources of energy, their classification non-renewable Vs .renewable, Conventional Vs. non- conventional, commercial vs. non-commercial, National Statistics and scenario of energy consumption pattern. Fossil fuels and thermal power:- Fossil fuels :-The theory of their formation and chemical composition. Coal, petroleum and natural gas- the extent of their reserve. Calorific values of fuels and their determination Principles and methods of their conservation. Thermal power plants.	
II	Solar Energy:- Application to systems for water heating ,refrigerator, cooking, desalination Energy From Biomass:- Process available for obtaining fuels from Bio-mass, Bio-gas plant and its functioning ,energy plantation.	
III	Fundamentals of environment –Definition, scope of environmental studies. Life and environmental hazards and risks. Environmental implications of energy use, problems of sustainability of environment. Factors affecting changes in environment-socio-economic, cultural and geographic factors. Environmental pollutions and public health. Toxic actions of insecticides and other harmful substances.	
IV	Environmental control Measurement Environmental legislation Environmental policies. Human rights and issues relating to environment Environment movements. Environmental ethics. Women and environment. Role of local, municipal authority, government and non-governmental agencies in promoting better health and environment.	
V	Waste Management. Types of waste. Methods of waste management Water pollution and treatment of waste..... Solid waste management. Air pollution control technology. Remedies to control pollution (Air, water, soil and noise)	



Basic Text & Reference Books:-

- Khanna Amit De et al.(1998), “Sustainable Development And Environment: Vol.1”.,Cosmo publishers, New Delhi.
- BASU, R.N.(2000), “Environment” Uni. of Calcutta .
- Bhatia, H.S. (1998), “A textbook on environmental ‘Galgotia publication, pollution and control, “New Delhi.
- Bosekc, Sinha K.R.C.C.and Mukharjee.R(1998) Environmental Abstracts,National Envi. Sc. Academy, New Delhi.
- Nanda,V.K.(2002), “ Environmental Education” Anmol publications, New Delhi
- Maheshwari, A, Parmar, G, (2002), “Text book of Energy, ecology, environment and society “Anmol publishers, New Delhi”.
- Deb, S, (2003), “Environmental Management” Jayco publishing House, New Delhi.

