CENTRE FOR FUTURES STUDIES

GENERIC ELECTIVE COURSES - SYLLABUS

(FOR UG COURSES)

The Gandhigram Rural Institute - Deemed to be University Gandhigram

Ministry of Education, Government of India

Accredited by NAAC with 'A' Grade (3rd Cycle)

Dindigul District

Tamil Nadu

CENTRE FOR FUTURES STUDIES

THE GANDHIGRAM RURAL INSTITUTE- DEEMED TO BE UNIVERSITY

GANDHIGRAM-624 302

TEMPLATE FOR OBE ELEMENTS

Name : Dr.K.Velumani

Designation & Department/Centre : Professor & Director
Centre for Futures Studies

Academic Courses offered : **Generic Elective Courses**

UG - GENERIC ELECTIVE COURSES

S.No.	Course Code	Course Title	No. of Credits	Lecture Hours	Evaluation		Total Marks
					CFA	ESE	
1.	21CFSG04G1	Future Trends in Green Marketing and Consumerism	3	3	40	60	100
2.	21CFSG04G2	Environment and Gender	3	3	40	60	100
3.	21CFSG05G1	Natural Resource Management	3	3	40	60	100
4.	21CFSG05G2	Green Technology Concepts and Life Cycle Analysis	3	3	40	60	100

UNDER GRADUATE COURSES

COURSE - I

Course Code	**21CFSG04G1**		**Credit - 3**
Title	**FUTURE TRENDS IN GREEN MARKETING AND CONSUMERISM**		
Programme	**Under Graduate level**	**Semester**	**ONE&TWO**
Course Objectives	The course is aimed ➢ To impart knowledge about the concept of marketing ➢ To understand the Green Marketing and its importance to the environment from the perspective of consumers, businesses and other stakeholders. ➢ To provide sufficient knowledge of the current state of the environment resulting from past and current practices of human consumption. ➢ To analyze and discuss issues pertaining to the planning, development and implementation of Green Marketing strategies to enhance the positive effects of human consumption on the environment.		

SYLLABUS

Unit	Content	No. of Hours
I	**MARKETING :** Marketing - Definition - Origin of Marketing - Nature & Scope of Marketing - Need for Marketing - Marketing Concepts - Selling Vs Marketing – Marketing Mix - Types of Markets	**8**
II	**GREEN MARKETING :** Introduction to green marketing - Need for green marketing - Green Marketing Stakeholders - Ethics and Social Responsibility for Green Marketing - Influences and Significance of Ethics for Green Marketing	**9**
III	**ENVIRONMENT AND CONSUMPTION** Interaction between the Environment and Consumption - Influences of Households on Energy Consumption - Consumer Decision-Making Process - Marketing actions designed to influence the Supply and Demand for Energy - Sustainable Marketing action designed to Influence Purchase Decisions	**10**
IV	**GREEN MARKETING INNOVATIONS** Product and Process Innovation Frameworks - Idea Generation - Preliminary Assessment - Business Case Preparation - Product Development - Test market and Validation – Commercialization - Follow-up - Communicating Green Marketing value - Green Marketing Innovators - Green Marketing Adoption	**10**

V	**SUPPLY CYCLE STRATEGIES AND FUTURE TRENDS IN GREEN MARKETING** Implementation of Green Marketing Strategies - Marketing Sustainable Product Lines - Marketing Sustainable Consumption - Diagnosing the Elements of Sustainable Supply Cycles - Benefits of Sustainable Supply Cycles - Sustainable Logistics - Green Marketing Future Trends - Career Opportunities in Green Marketing	**8**
Reference	1. Esty, Daniel and Andrew Winston, (2009), Green to Gold: How Smart Companies Use Environmental Strategy to Innovate, Great value, and Build Competitive Advantage, John Wiley & Sons, New Jersey, NJ. 2. Grant, John, (2007), The Green Marketing Manifesto, John Wiley & Sons, New Jersey, NJ. 3. Polonsky, M. J. (2001), "Re-evaluating Green Marketing: A Strategic Approach," Business Horizons, 44 (5), 21-30. 4. Prakash, Aseem (2002), "Green Marketing, Public Policy, and Managerial Strategies", Business Strategy and Environment, 11 (5), 285-297. 5. Peattie, Ken, (2001), "Towards Sustainability: The Third Age of Green Marketing", Marketing Review, 2 (2), 129-146. 6. Ottman, Jacquelyn A., (2011), The New Rules of Green Marketing: Strategies, Tools, and Inspiration for Sustainable Branding, Berrett-Koehler Publishers, New York, NY. 7. Srivastava, Samir K. (2007), "Green Supply-Chain Management: A State-of the-Art Literature Review", International Journal of Management Reviews, 9 (1), 53-80. 8. Stephen W. McDaniel, David H. Rylander, (1993) "Strategic Green Marketing", Journal of Consumer Marketing, Vol. 10 (3), 4 —10.	
Course Outcomes	**The students will be able to understand** **CO 1 -** The basic concept of marketing and marketing mix **CO 2 -** The importance of green marketing for sustainable development **CO 3 -** The various issues in green marketing management **CO 4 -** The steps involved in the green innovation in various field and its adoption **CO 5 -** The effective marketing strategies to enhance the human consumption	

COURSE - II

Course Code	**21CFSG04G2**		**Credit - 3**
Title	**ENVIRONMENT AND GENDER**		
Programme	**Under Graduate level**	**Semester**	**ONE & TWO**
Course Objectives	The course is aimed to ➢ Impart knowledge about the relationship between gender and environment ➢ Understand contemporary environmental issues and women resistance to environmental destruction ➢ Provide opportunity to relate course content to their daily lives, further studies and careers		

SYLLABUS

Unit	Content	No. of Hours
I	**ENVIRONMENT AND GENDER** Environment – Definition – Components - Gender and Nature - Women's Dependency on Natural Resources – Gender and Management of Natural Resources - Depletion of Natural Resources	**7**
II	**RURAL - URBAN ENVIRONMENT** Women and Rural Environment - Medical plants - Water Resources - Livestock Management - Food Security - Awareness on Drainage and Sanitation - Urbanization - Solid and Liquid Waste - Solid Waste Management - Role of Women in Waste Management	**12**
III	**WOMEN AND ENVIRONMENTAL MOVEMENT** Joint Forest Management - CHIPKO Movement – Green Belt Movement - Narmada Bacho Andolen – Silent Valley Movement - Tehri Dam Conflict - Women's Knowledge and Enterprise in food and Nutrition - Reclaiming Women's Environmental Rights	**8**
IV	**ENVIRONMENTAL IMPACTS ON WOMEN** Environmental Problems –Impacts on Women's Health –Physical and Mental Health Issues - Heart Disease in Women – Reproductive Hazards- Remedial Measures to Improve the Health Status of Women	**10**
V	**GENDER AND CONSERVATION OF NATURAL RESOURCES** Women in Biodiversity Management - Conservation: Botanical gardens - Gene Banks - Home Gardens - Gender and Agro biodiversity - Role of Women in Seed Preservation - Community Biodiversity Conservation and Projects	**8**

Reference	1. M.S.Swaminathan. (1998). "Gender Dimensions in Biodiversity Management". Konarkpublisherspvt ltd, New Delhi. 2. P.K.Rao. (2000) "Sustainable Development – Economics and Policy". Blackwell, New Delhi. 3. Promillakapur (ed). (2000). "Empowering Indian Women". Publication Division, Government of India, New Delhi. 4. RadhaKumar.(1993). "The History of Doing". Kali for Women, New Delhi. 5. Ronnie Vernooy, (Ed). (2006). "Social and gender Analysis Natural Resource Management: Learnning studies and lessons from Aisa". Sage, New Delhi. 6. Swarup, Hemlata and Rajput, Pam. (2000). Gender Dimensions of Environmental and Development Debate: The Indian Experience". In SturatS.Nagel, (ed). "India's Development and Public Policy". Ashgate, Burlington. 7. Vandana Shiva and Moser, Ingunn (eds). (1995). "Bio Politics: A Feminist and Ecological Reader on Biotechnology". Zed Books LTD, London 8. Vandana Shiva. "Gender and Technology Journal " Sage. 9. Vandana Shiva. (2005). Globalization's New Wars: Seed. Water and LifeForms". Women Unlimited, New Delhi. 10. Venkateshwara, Sandhay. (1995). "Environment, Development and the Gender Gap". Sage Publications, New Delhi.
Course Outcomes	**The students will be able to** **CO1 -** Understand the Causes of Environmental Destruction and its Effects on Health **CO2 -** Know about the Women's involvement in Environmental Movements **CO3 -** Propose and Evaluate Possible Solutions to Environmental Problems according to Gender **CO4 -** Identify the Men and Women Contribution in Conservation of Natural Resources **CO5 -** Respond creatively and reflectively to the Challenges posed by these issues on Gender Perspective

COURSE – III

Course Code	**21CFSG05G1**		**Credit - 3**
Title	**NATURAL RESOURCES MANAGEMENT**		
Class	**Under Graduate level**	**Semester**	**THREE**
Course Objectives	**The course is aimed to help the students** ➢ To understand the importance of natural resources and strategies for its sustainable management. ➢ To Develop a fair understanding the natural resource conservation and consumption ➢ To learn to community and other approaches towards natural resource management		

SYLLABUS

Unit	Content	No. of Hours
I	**NATURAL RESOURCES** Natural Resource – Importance – Classification: Based on Origin – Based on Utility - Based on ownership - Based on Development - Based on availability - Utilization and Conservation in India - Sustaining the Environment	**7**
II	**BIORESOURCES MANAGEMENT** Forestry- Trees and their Growth - Products and Benefits- Management of Pest and Disease - Aquaculture – Fisheries - Wildlife Management - Habitat Requirements of Wildlife - Human Impact on Wildlife – Sustaining Wildlife - Recent Trends in Wildlife Management	**10**
III	**LAND AND WATER RESOURCES MANAGEMENT** Locations of Minerals and their Importance - Soil Resources - Erosion- Land Use and Management Issues - Range Management - Conservation Practices - Water use Plans - Integrated Water Resources management- Water Allocation, markets, pricing and conservation	**8**
IV	**ENERGY RESOURCES** Non Renewable sources of Energy and their Management- Fossil Fuel Management - Coal, Oil, Natural Gas - Renewable Energy : Solar Energy – Wind Energy – Wave – Tidal - Geothermal Energy - Bioenergy - Biodiesel Production and its Importance	**12**
V	**RESOURCE MANAGEMENT** Need – Importance - Approaches in Resource Management – Eight Principles of Natural Resource Management – Types : Forest – Water - Land – Minerals – Energy - Natural Resource Management and Challenges	**8**

Reference	1. Craig, J.R., Vaughan. D.J. & Skinner. B.J. 1996. Resources of the Earth: Origin, Use, and Environmental Impacts (2nd edition). Prentice Hall, New Jersey. 2. Freeman, A.M. 2001. Measures of value and Resources: Resources for the Future. Washington DC. 3. Freeman, A.M. 2003. Millennium Ecosystem Assessment: Conceptual Framework. Island Press. 4. Ginley, D.S. & Cahen, D. 2011. Fundamentals of Materials for Energy and Environmental Sustainability. Cambridge University Press. 5. Klee, G.A. 1991. Conservation of Natural Resources. Prentice Hall Publication. 6. Natural Resource Management: Need for 21st Century/Sunit Gupta and Mukta Gupta.1998, 7. Community-Based Natural Resource Management: Issues and Cases from SouthAsia by Ajit Menon, Praveen Singh, Esha Shah, SharachchandraLélé, Suhas ParanjapeandK.J.Joy, SAGE, 2007 8. Owen, O.S, Chiras, D.D, &Reganold, J.P. 1998. Natural Resource Conservation –Management for Sustainable Future (7th edition). Prentice Hall. 9. Sustainable Natural Resource Management, AbiudKaswamila, CBS Publishers and Pvt Ltd., India, 2012.
Course Outcomes	**The students will be able** **CO1 -** To understand the Importance of Natural Resources **CO2 -** To develop Water and Land Resource Management Strategies **CO3 -** To know about the Management of Bio Resources **CO4 -** To develop an attitude to Conserve the Energy Resources by the use of Renewable Energy **CO5 -** To familiar with the Human Approaches towards Sustainable Resource Management**.**

COURSE - IV

Course Code	**21CFSG05G2**		**Credit - 3**
Title	**GREEN TECHNOLOGY CONCEPTS AND LIFE CYCLE ANALYSIS**		
Programme	**Under Graduate level**	**Semester**	**THREE**
Course Objectives	**The course is aimed to** ➢ Enable the students to acquire the knowledge and skills needed to address concepts of Sustainability and cleaner production ➢ Provide knowledge about the Green Technologies and their applications in various field for sustainability ➢ Understand the concept of Life Cycle Analysis (LCA) and the basic principles and the methods		

SYLLABUS

Unit	Content	No. of Hours
I	**GREEN TECHNOLOGY** Green Technology – Concepts - Principles - System Approach - Introduction to Sustainability - Concepts and Definition of Life Cycle Analysis - Material Flow and Waste Management - Risk and Life Cycle Framework for Sustainability	**7**
II	**GREEN TECHNOLOGIES FOR ENERGY PRODUCTION** Energy – Uses - Various Technologies available for Energy Production - Cost Comparison for Power Generation – Existing Sources of Energy Production - Alternative Methods	**8**
III	**GREEN TECHNOLOGIES FOR SPECIFIC APPLICATIONS** Green Buildings – Guidelines - Energy Conservation - Building Code (ECBC) - Green Hotels and Hospitals - Green Transportation - Green Roads - Changing Scenario in Cities - 'Green' Infrastructure for Municipal Services	**8**
IV	**LIFE CYCLE ANALYSIS** LCA Methodology - Historical Development of LCA - Goal Life Cycle Inventory - Life Cycle Impact Assessment, Life Cycle Interpretation - Procedure for Life Cycle Impact Assessment - Factors for good LCA Study - Benefits and Drawbacks LCA	**10**
V	**SUSTAINABLE DEVELOPMENT** Sustainable Development – Concept - underlying principle - types and growth of the idea indicators of sustainability - models of sustainable development - Design for Sustainability - Environmental Design for Sustainability : Economic - Environmental and Social Performance Indicators	**12**

Reference	1. Anastas, P.T. & Warner, J.C. 1998. Green Chemistry: Theory & Practice. Oxford University Press. 2. Arceivala, S.L. 2014. Green Technologies: For a Better Future. Mc-Graw Hill Publications. 3. Background and Future Prospects in Life cycle Assessment-Walter Klopffer, Springer,2014. 4. Environmental Life- Cycle Assessment- Marry an Curran, McGraw Hill. 1996. 5. Green Technologies and Environmental Sustainability edited by Ritu Singh, Sanjeev Kumar 6. Green Technologies, Soli J. Arceivala, Mc Graw Hill Education 7. Life Cycle Assessment Handbook-A Guide for Environmentally Sustainable Products- Mary Ann Curran, John Wiley & Sons, Inc. Hoboken, New Jersey, 2012. 8. Life cycle Assessment Inventory Guidelines and Principles-B.W. Vigon, C.L. Harrison and U.S.E.P.A. Risk Reduction Engineering Laboratory, Lewis Publishers 1994. 9. Thangavel, P. & Sridevi, G. 2015. Environmental Sustainability: Role of Green Technologies. Springer publications. 10. The Computational Structure of Life Cycle Assessment- Reinout Heijungs and Sangwon Suh, Springer- Science Business Media, B.V, 2002.
Course outcomes	**The students will be able** **CO1 -** To understand the Need for Green Technologies in Modern Era **CO2 -** To develop Green Infrastructure for Sustainable Life Style **CO3 -** To implement the available Green Technologies in various field for the Reduction of Pollution **CO4 -** To become conscious about the Life Cycle Analysis and Impact Assessment **CO5 –** To know the different methods for Cleaner or Emission Free Production and the Future of Green Technologies