Annamalai University
Value Added Course (VAC)- Syllabus
Population Studies

Course Code	Course Title	Hours/ Week			Credit
		L	T	P	
APOPVAC02	VALUE ADDED COURSE (VAC) 02 POPULATION AND CLIMATE CHANGE	2	-	-	2

Learning Objectives (LOs)

The students will be able to

LO1 : Understand the basic components of population change

LO2 : Explain the Strategies the climate system and natural variability

LO3 : Analyze the Responses to Climate Change Adaptation and Mitigation

Course Outcomes (COs)

After completion of the course the students will be able to

CO1 : Acquire the average about population Change and Balancing equation

CO2 : Understand the Climate Change and Natural Variability the Human Effects on Climate

CO3 : Demonstrate the Adaptation concepts and strategies Renewable Energy Sources and Climate Change Mitigation

CO4 : Analyze the impacts on Natural Resources Vulnerability of Coastal Belt in India towards climate Change

CO5 : Comprehend the linkages of the Role of the IPCC in Climate Change

UNIT–I : Population Changes

Historical background; Demographic determinants of Population Change-Fertility, Mortality and Migration; Balancing equation; Development of Population Studies in India., India's Population Growth, Situation , and Distribution.

UNIT- II: Understanding Climate Change

Introduction to the Climate System; Drivers of Climate system ; Climate Change and Natural Variability; The Human Effects on Climate; Changes in Atmospheric Constituents and Radiative Forcing; Learning from the Past.

UNIT -III: Responses To Climate Change: Adaptation and mitigation

Limiting climate change: Adaptation and Mitigation; Adaptation concepts and strategies; Renewable Energy Sources and Climate Change; Mitigation, Costs and benefits of adaptation, Projections of future climate change.

UNIT- IV: Climate Change and India's Concerns

Climate Change Impacts on Natural Resources; Vulnerability of Coastal Belt in India towards climate Change; Climate Change, Rural Livelihoods and Food Security in India; India's Position on International Climate Negotiations; India's National Action Plan on Climate Change.

UNIT -V: Policy Framework on Aspects Of Climate Change

Governmental and Intergovernmental Actions to Combat Climate Change; The Role of the IPCC on Climate Change United Nations Framework Convention on Climate Change; The Kyoto Protocol to the Framework Convention; The global carbon market (CDM, JI, IET); Ecological Footprints and Carbon Footprints.

TEXT BOOKS:

1. Leelakrishnan, P., Environmental law in India. LexisNexis, 2011.
2. Singh, J.S., & Gupta, S.R. Ecology, Environment and Resource conservation. Anamaya Publ., New Delhi, 2006.
3. Smith, TM and Smith RL. Elements of Ecology, Pearson Education, India 2015.
4. McGuire, C. J, and Environmental Law from the Policy Perspective: understanding how legal frameworks influence environmental problem solving. Routledge. 2014.
5. Sudarshan, KN & Trivedi KR, Population and Community Ecology. Neha Publishers & Distributors, 2011.

SUPPLEMENTARY READINGS:

1. Dwivedi, O. P., India's Environmental Policies, Programmes and Stewardship, Springer, 2016.
2. Ahmed M. Hussen,. Principles of Environmental Economics and Sustainability: An Integrated Economic and Ecological Approach, Routledge publisher,2012).
3. Ayres, R.U. & L.W. Ayres. A Handbook of Industrial Ecology. INSEAD, France,2012.
4. Scott J. Callan, Janet M. Thomas, 2015 Environmental Economics and Management Theory, Policy and Applications, South Western publishers,2011.
5. Keller, E.A., Introduction to Environmental Geology, Pearson Prentice Hall,2011.
6. Putnam R, Community Ecology. Springer Publications, 2010.
7. John T. Hardy Climate Change: Causes, Effects, and Solutions,2003.
8. UNFPA IIED, Population Dynamics and Climate Change, UNFPA IIED Publisher,2009
9. Oli Brown , Migration and Climate Change, 2008

Outcome Mapping

PO /CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO1	3	1	2	3	1	3	3	3	2	1	3	2	3	3	2	1	1	3
CO2	3	3	3	2	1	1	2	3	3	3	1	1	2	3	3	3	3	1
CO3	2	1	1	2	3	3	3	3	2	1	2	1	3	3	2	1	1	2
CO4	3	1	2	3	1	3	3	3	2	1	3	2	3	3	2	1	1	3
CO5	2	1	1	2	3	2	3	3	2	2	2	1	3	2	1	2	1	2

1-Low 2-Medium 3- Strong