Ph.D Course Work Syllabus on

Environmental Studies (Centre for Environmental Studies)

Semester	Course	Course Name	Lecture	Credit
	No		(Hours)	
Ph.D Course	EVS-111	Research Methodology	10	4
Work	EVS-112	Environmental History	10	4
$(50 \times 4 = 200)$	EVS-113	Concept and Techniques in Environmental	10	4
		Studies		
	EVS-114	Statistics for Environmental Studies	10	4

Ph.D Course work

Credit= $4x \ 4 = 16$ FM: $50 \ X \ 4 = 200$

Course 1: EVS 111: Research Methodology:

- 1. Basic concept of research, Objectives, Motivation and Significance of research, Types of Research, Deductive and Inductive Approach
- 2. Levels of Certainty: Facts, Hypotheses, Theories and Laws, Criteria of good research
- 3. Research Problem: Identification and Techniques of defining a research problem, significance of literature review
- 4. Research Design: Research design for Exploratory, Descriptive and Hypothesis-testing research studies.
- 5. Sampling Design: Steps in Sampling Design, Types of Sampling and their applications in research.
- 6. Collection of Spatial and Temporal data.
- 7. Problems encountered by researchers in India
- 8. Assignment Writing

Course 2: EVS 112: Environmental History

- 1. Social, economic, cultural and intellectual histories under the umbrella of global environmental history
- 2. Studies on themes such as race, ethnicity, class, community, gender, power, knowledge, etc.
- 3. Forest, deforestation, soil erosion, resistance, politics of environment, subsistence, the animal and insect worlds in tropical forests and hunting
- 4. Climate, impact of climatic changes on history, demography, natural calamities such as earthquakes, cyclonic storms, hurricanes, tornadoes, floods, rainfall, tsunamis, volcanic eruptions, mudslides and forest fires.
- 5. Air and Water pollution,
- 6. History of sound and smell
- 7. History of public health, epidemics, medicine.
- 8. Assignment Writing

Course 3 : EVS 113: Concept and Techniques in Environmental Studies

- 1. Man and Environment & Women-Nature Relationship
- 2. Research Design under Realism and Structuralism.
- 3. Economic and Environmental issues related to Tourism and Travel Management.
- 4. Social Indicators of Development with Special Reference to Health and Education

- 5. Gender and Development: Regional Dimensions with Special Reference to India
- 6. Environmental Resources and the Urban Ecology
- 7. Environmental Toxicology, Health and Safety
- 8. Assignment Writing

Course 4 : EVS-114: Statistics and Computer Application for Environmental Studies

- 1. Basic Statistics, Organization of data array, frequency, class intervals, histograms, and distribution, Presentation of Data: Tables, Diagrams
- 2. Grouped data and ungrouped data, Geographical data: discrete and continuous series, scales of measurement, Measures of Central Tendency mean, median, mode, quartiles, Skewness and Kurtosis
- 3. Correlation: meaning, scatter diagram, standard deviation, variance, Measures of correlation Karl Pearson's method (two variables ungrouped data), Spearman's rank correlation methods.
- 4. Concept of variables, vectors, probability and sampling / sampling design and applications, Hypotheses and their testing.
- 5. Bivariate correlation and linear regression: problem of estimation and problem of inferences.
- 6. Spreadsheet Tool: Introduction to spreadsheet application, features and functions, using formulas and functions, Data storing, Features for Statistical data analysis, Generating charts/graph and other features. Tools may be used in Microsoft Excel, Open office or any other available software.
- 7. Presentation Tool: Introduction to presentation tool, features and functions, Creating presentation, Customizing presentation, showing presentation. Tools may be used in Microsoft Power Point, Open Office or similar tool and Web Search: Introduction to Internet, Use of Internet and WWW, Using search engine like Google, Yahoo etc, Using advanced search techniques.
- 8. Assignment Writing