Ph.D Course Work Syllabus
on
Environmental Studies
(Centre for Environmental Studies)

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