Course Name : Research Methodology

Course Code: GEO 701

Credit: 05

Unit	Content
I	Research Design: Objectives of Research: Types of Research: Descriptive/ Analytical, Applied/Functional, Qualitative/Quantitative, Conceptual/Empirical; Necessity of Geographical, Research and its Significance; Methods of Explanation in Geography, Identification and Conceptualization of a Research Problem, Research Questions, Review of Geographical, Research: Method and Style, Referencing and Bibliography.
II	Typology and Method: Primary Data: Observational Method, Questionnaires and, Interviews, Descriptive Research, Hypotheses Testing, Cross Sectional and longitudinal Research, Case Studies, Pilot Studies, Behavioural Research, Mixed Method.
III	Research and Scientific Research: Preparing a Research Project; Writing of the Thesis, Format for Scientific Report Writing, Reference Citing, Bibliography, Finalizing the thesis and its Presentation.
IV	Quantitative Techniques: Sources of Data and its Method of Collection: Secondary Data: Census, NSS, CSO, Aerial Photographs and Satellite Imageries; Correlation, Sampling Techniques, Chi Square Test and T- Test, Annova one way, Mandalay/ Zotero, Regression, Z- Score.
V	Report Writing: Synopsis preparation, Literature Review

Course Name: Advance spatial Statistical techniques

Course Code: GEO 702

Credit: 05

Unit	Content
I	Statistics and Statistical Data: Spatial and non-spatial; indices of inequality and disparity; Probability theory, probability density functions with respect to Normal, Binomial and Poisson; distributions and their geographical applications.
II	Sampling: Sampling plans for spatial and non-spatial data, sampling distributions; sampling estimates for large and small samples tests involving means and proportions.
III	Correlation and Regression Analysis: Rank order correlation and product moment correlation; linear regression, residuals from regression, and simple curvilinear regression; Introduction to multi-variate analysis.
IV	Inductive Data Analysis, Hypothesis Testing, Analysis of variance, Multiple Regression and Correlation.
V	Spatial Analysis, Gravity and Potential Models, Network Analysis, Trend Surface Analysis; Spatio-Temporal Analysis, Qualitative Data Analysis, Techniques of Qualitative Data Analysis.