

Masters Arts And Science Geography

AMC 800	Research Methods in Social Sciences
Course content Including topics	Introduction, the nature and functions of research. Basic research methods with reference to individual disciplines. Identification and definition of research problems. Determination of the matrix, statement of problem. Definition and formulation of hypotheses. Formulation of research design (proposal). The title: purpose and problem: Survey of the literature: procedure; tools and time schedules. Research budgets and application for funds. Data collection: library resources (published and unpublished), note taking and the appraisal of source materials: field data collection, mapping interviewing (including questionnaire design), sampling procedures. The issue of pilot projects. Data tabulation and analysis: use of tables: text figures, diagrams, plates: statistical analysis and presentation of data: use of models. Introduction to the use of computers in data storage and analysis.
AGE 801	Geographic Thought and Methodology
Course content Including topics	Evolution of concept concerning the nature, scope and methodology of geography and its relation to other fields of study. Analysis of development and significance of basic geographic concepts and theories such as place, spatial relations, landscape and human environment relations
AGE 802	Advanced Quantitative Methods in Geography
Course content Including topics	Review: Probability Calculus and Probability Distributions, Random Variables and Normal Distributions (z, t and F); Sampling Distributions and Interval Estimation; Theory Testing and Testing of Hypotheses. Matrix Algebra; Statistical prediction, simple correlation and regression; Correlation and Regression; Analysis of Variance (ANOVA) for Simple Regression; Expected Values and outliers for a Simple Statistical Prediction; Stochastic Regression Properties. Multiple regression: Relationship between Simple, Partial and Multiple Correlations; Prediction in the Multiple Regression Model. Multivariate analysis and tests of stability; Degrees of Freedom, R ² and Adjusted R ² ;Analysis of Variance; Tests of Hypotheses for Multiple Regression; Predictive Tests of Stability; Multiple Analysis of Variance and Covariance; Factor analysis; Principle Component Analysis; Statistical

	Predication: Testing violation of basic model; Tests of Multicollinearity; Tests of Autocorrelation; Simultaneous Equations Models; Nonlinear and Abnormal Regression Models; Time Series: Methods of Time Series; Problem of Stationarity Models for Predicting Time Series; Testing Goodness of Fit; Validity and Reliability Tests; Co-integrating Regression and Error Correction Model
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