

Department of Geography
Syllabus for Ph.D. in Geography

Geo 701 Research Methodology and Research Reporting
(Academic Year 2011 – 2012)

Unit - 1 : Computer base and spatial data management, use of quantitative and cartographic methods, use of software tools, creation of folders, saving files, spreadsheets, use of statistical formula and cartographic representation – spatial and non-spatial data – through micro-soft-excel and GIS software packages.

Unit – II Research themes and issues, Survey of research in geography selection and relevance of research theme, sources and types of data , - primary and secondary data, - published and unpublished sources, toposheet, satellite imageries, formulation research proposal questionnaire schedule formulation of hypothesis, objectives, Nature, type and characteristics of hypothesis. Testing of hypothesis – chi-square test and student's 't' test.

Research design, Methodology and data base, out line of the research project, report writing, Appendices, notes, references, citation and bibliography.

Unit – III Principles and application of following Cartographic & Quantitative techniques (Any two)

1. Correlation regression analysis
2. Near neighbor analysis
3. Rank-size rule and primacy index
4. Use of statistical methods for spatial data and cartographic representation.
5. Regionalization methods and techniques.

Unit – IV: Principles and applications of following GIS & RS techniques
(Any two)

1. Digital image processing techniques
2. Remote Sensing platforms and seasons
3. Mapping through satellite imageries

- 4 Digital Elevation Modeling
- 5 Land use and land cover mapping.

References :

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3. Davis Peter (1975): Data Description and presentation, Oxford University press, London.
4. Daly M.T. (1972): Techniques and Concepts in Geography: A Review, Thomas Nelson (Australia) Ltd., Melbourne.
5. Daugherty Richard (1974) : Data collection, Oxford University Press, London
6. Fitz Gerald Brain P., (1975) : Development in geographical Method, Oxford University Press, London.
7. Gregory S. (1970) : Statistical methods and the geographer Longman Group Ltd., London
8. Hammond Robert and Patrc McCullugh (1974): Quantitative Techniques in Geography: An Introduction Clarendon Press, Oxford.
9. Heywood Ion, Sarah Cornelius, steve carver (2003): An Intro-duction to Geographical Information Systems. Pearson Education (Singapore), Private Ltd., New Delhi.
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11. Mc Cullagh (1974): Data Use and Interpretation, Oxford University Press, London.
12. Misra R.P. (1989) : Research Methodology – A Handbook, Concept Publishing company, New Delhi
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