

Department of Geography
Indira Gandhi National Tribal University Amarkantak (MP)
Choice Based Credit System

Ph.D. Course Work Syllabus

Course Code	Course Name	Credits
GRPC 101	Research Methodology in Geography	4
GRPC 102	Quantitative Techniques and Digital Cartography	4
To be Opted by Students (Any One)		
GRPC 103	Urban Studies	4
GRPC 104	Regional Development and Planning	4
GRPC 105	Agricultural Geography and Rural Area Development	4
GRPC 106	Population Dynamics and Family Welfare Programmes	4
GRPC 107	Applied Geomorphology	4
	Total Credits	12

Ph.D. Course Work

Course Code
GRPC 101

Course Name
Research Methods in Geography

Credit: 04
Contact hours: 60

Unit I

Meaning and characteristics of research, Steps in research process, Types of research: Sources of the selection of the problem, Criteria of the selection of the problem, Meaning and Types of variables, Meaning and types of hypotheses.

Unit II

Meaning and general information about construction procedure of (i) Questionnaire, (ii) Interview, (iii) Psychological test, (iv) Observation (v) Rating scale (vi) Attitude scale and (vii) Check list, Advantages and disadvantages of above tools.

Meaning of population and sample, Importance and characteristics of sample, Sampling techniques - i) Probability sampling: random sampling, stratified random sampling, systematic sampling, cluster sampling ii) Non-probability sampling: incidental sampling, purposive sampling, quota sampling.

Unit III

Meaning and conducting procedure of following methods of research: Historical method, Survey method, Case study, Experimental methods.

Level of measurements of data, Steps in treatment of data: editing, coding, classification, tabulation, analysis and interpretation of results.

Unit IV

Drafting of Research Proposal.

Sections of Report: Preliminary Section, Content section: Various chapters, Supplementary section: Appendices, References, Abstract.

Suggesting Readings

1. Ahuja, Ram 2001. Research Methods. Rawat Publications, Jaipur and New Delhi.
2. Bolton, T. and Newbury, P.A 1968. Geography Through Fieldwork. Blandford Press, London.
3. Flowerdew, R. And Martin, D. (eds.) 1997. Methods in Human Geography. A Guide for Student Doing a Research Project. Longman, Harlow.
4. Knight, Peter G. And Parsons, Tony 2003. How to do your Essays Exams and Coursework in Geography and Related Disciplines. Nelson Thornes, Cheltenham U. K.
5. Limb, McLaine 2001, Qualitative Methodologies for Geographers. Issue and Debates. Arnold, London.
6. Singh, R. L. And Singh, Singh, Rana P. B. 1993. Elements of Practicle Geography. Kalyani Publishers, Ludhiana and New Delhi. (English and Hindi editions; several edition).
7. Lee, Roger Smith, David M. (eds.) 2004, Geographies and Moralities: International Perspectives on Development, Justice and Place. Wiley-Blackwell, Oxford.
8. Limb, McLanie 2001, Qualitative Methodologies for Geographers. Issue and Debates. Arnold, London.
9. Stoddard, Robert H. 1982. Field Techniques and Research Methods in Geography. Kendall/Hunt Pub. Dubuque.

Ph.D. Course Work

Course Code	Course Name	Credit: 04
GRPC 102	Quantitative Techniques and Digital Cartography	Contact hours: 60

Unit I

Standard Deviation, Correlation, Chi Square, 't' Test, 'z' score, ANOVA

Unit II

Applications of Statistical Software: Excel and SPSS

Unit III

Cartographic Techniques in Geography, Computer Aided Cartography, Designing and Preparation of Maps on Various Scales.

Unit IV

Applications of Remote Sensing and GIS in Geographical Research.

Suggested Readings

1. Arora P. N. & Arora S. 1994. Foundation Course in Statistics, S. Chand and Company Ltd, New Delhi.
2. Aslam Mehmood 1976. Statistical Techniques in Geographical Studies, Rajesh Publication, New Delhi.
3. Durrenberger, R. W. 1971. Geographical Research and Writing, Thomas Y. Cromwell & Co. New York.
4. Gibbs, J. P (ed.) 1966. Urban Research Methods, D Van Nostrand Co., Inc Princeton, New Jersey, New York.
5. Gregory, S. 1963. Statistical Methods and the Geographer, Longman, London.
6. Hammond, R. and Mc Cullagh P. 1974. Quantitative Techniques in Geography Clarendon Press, Oxford.
7. Haring, L. L. and Loundbury, J. F. 1975. Introduction to Scientific Geographic Research. W.C. Brow Company, U.S.A.
8. Haring, Lloyd 1975. Scientific Geographic Research. W.C. Brow Company, U.S.A.
9. Lillesand and Kiefer 1994. Remote Sensing and Image Interpretation, John Wiley and sons Inc, New York.

Ph.D. Course Work

Course Code
GRPC 103

Course Name
Urban Studies

Credit: 04
Contact Hours: 60

Unit I

Conceptual Issues in Urban Studies: Urban Studies and Basic Concepts of Evolution, Morphology and Functions.

Unit II

Dimensions of Urban Studies in India, Urbanization with special reference to India.

Unit III

Urban Issues and Challenges: Urban Structure, Urban Residential Problems; Urban Environment: Slums, Solid Waste Disposal and Others.

Unit IV

Urban Management: Urban Problems and Planning: Governance and Managements; Urban Development Plan and Policies; Planned and New Towns, Future cities.

Suggested Readings

1. Dutt, Ashok et al 1994. The Asian Cities: Processes of Development, Characteristics and Planning. Geo journal Library, London.
2. Fyfe, Nicholas R. and Kenny, Judith T. (eds.) 2005. The Urban Geography Reader. Routledge, London.
3. Gallien, A.B. and S. Eisner 1963. Urban Pattern. New York.
4. HUDCO-HSMI.2001. The States of Indian Cities. HUDCO HSMI, New Delhi.
5. Kumar B. and R.B. Singh 2003. Urban Development and Anthropogenic Climatic Change. Manak Publication, New Delhi.
6. Pacione, M. 2005. Urban Geography: A Global Perspective. 2nd ed. Routledge, London.
7. Ramachandran, R. 1989. Urbanization and Urban System in India. Oxford University Press, New Delhi.
8. Prakasa Rao, V.L.S. 1983. Urbanisation in India: Spatial Dimensions. Concept, New Delhi.
9. Mishra R.P. and Mishra, K. (eds.) 1998. Million Cities of India. Vol.I/II Sustainable Foundation, New Delhi.
10. Singh, R.L. 1995. Banaras: A Study in Urban Geography. Nand Kishor and Brothers, Banaras.
11. Sivaramakrishnan, K.C. et al. 2005. A Hand Book of Urbanization in India. Oxford University Press, New Delhi.
12. Kundu, A. 2005. Urban Development and Urban Research in India. Khama Publishers, New Delhi.
13. Knox, Paul and Pinch, Steven 2006. Urban Social Geography. Pearson Prentice-Hall, Englewood Cliffs NJ.5th Ed.
14. UN-HABITAT 2003. Water and Sanitation in World Cities: Local Action for Global Goals. Earthscan, London.

Ph.D. Course Work

Course Code GRPC 104	Course Name Regional Development and Planning	Credit: 04 Contact Hours: 60
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UNIT I

Conceptual: Concepts of Development, Theories of Development and Spatial Organization (Rostov, Myrdal, Harshman and Friedman), and Central Place Theory (Christaller and Losch) and Growth Pole Theory.

UNIT II

Methodologies and Strategies: Methods and Approaches and Development Planning, Planning Strategies with special reference to Micro regional Planning, Multilevel Planning, Integrated Area Development and Regional Planning and Service Center Planning.

UNIT III

Measures of Development: Various measures and Indices of Development, Regional Disparities and Planning in India.

Unit IV

Special Area Plans: Tribal and Backward Area Planning and Drought Prone Area Planning.

Suggested Readings

1. Barkin and King 1970. Regional Economic Development. Cambridge University Press.
2. Basu, K. 2000. Analytical Development Economics: The Less Developed Economy Revisited OUP.
3. Behrman, J. and Srinivas, T.N. 1998. Handbook of Development Economics. Vol. III
4. Berberoglu, B. 1992. The Political Economy of Development. Status University of N York Press.
5. Bhat, L.S. 1972. Reginal Planning in India. Indian statistical Institute, Calcutta.
6. Bhat, L.S. 2003. Micro Planning: A Case Study of Karnal Area. KB Publs., New Delhi.
7. Crush, J. 1995. Power of Development. Routledge, London.
8. Friedman, J. and Alonse, W. eds. 1968. Regional Development and Planning. M.I.T. Press.
9. Datta, B 1997. Indian Planning at Crossroad, OUP.
10. Harrish, J. 2004. Depoliticizing Development, Left World.
11. Mishra, R. P. 2002. Regional Planning, Concept, Techniques, Policies and Case Studies. Concept Publishing Company, New Delhi.
12. Munshi, S.K. 1984. India Resource Regional Disparity. PPH
13. Rajalakshmi, N. 2000. Environment and Economic Development. Manak.
14. Ray Choudhary, J 2001. An Introduction to Development and Regional planning. Orient Longman.
15. Saunders, p. 1998. Capitalism: A social Audit, World View.
16. Sharma P.R. (ed.) 1991. Perspective on the Third World Development. Rishi Pbls., Varanasi.
17. Singh, B.N. 1988. Integrated Rural Area Development and Planning. Anupama Pbls., Delhi.

Ph.D. Course Work

Course Code	Course Name	Credit: 04
GRPC 106	Population Dynamics and Family Welfare Programmes	Contact Hours: 60

Unit I

Concept and Components of population Dynamics; Population Growth: Trends and Theories; Mortality and Morbidity: Patterns and Trends; Fertility: Trend, Patterns and Determinants; Migration: Trend and Patterns; Major world Issues of Population.

Unit II

The case of India: Population Dynamics: Regional Variation and Determinants; Fertility, Mortality and Migration: Trend and Determinants, Urbanization: Challenges and Opportunities.

Unit III

Data Sources, Measures of population (arithmetic, geometric and exponential) and distribution (density, population potential, Lorenze curve); Measures of mortality and fertility; Models of migration (indirect estimation of internal migration, Ravenstein's law and Lee's model), Population projection.

Unit IV

Family Welfare Programmes in India: A critical appraisal; National population policy.

Suggested Readings

1. Behura, Nab Kishore and Mohanty, Ramesh P. 2005. Family Welfare in India: A Cross-Cultural Study. Discovery Publication House, New Delhi.
2. Birdisall, Nancy; Kelley, Allen C. and Sinding, Steven W. (eds.) 2001. Population Matters: Demographic Change, Economic Growth, and Poverty in the Developing World. Oxford University Press, Oxford.
3. Cassen, R. (eds.) 1994. Population and Development: Old Debate, New Conclusions. Transaction Publishers. New Brunswick and Oxford.
4. Chandra, Shanta Kohli 1987. Family Planning Programme in India: Its Impact in Rural and Urban Areas. Mittal Publication, New Delhi.
5. Chu, C.Y. Cyrus 1998. Population Dynamics: A New Economic Approach. Oxford University Press, New York.
6. Dyson, Tim (ed.) 1998. India's Historical Demography: Studies in Famine, Disease and Society. Curzon Press. London.
7. Hummel, Diana 2008. Population Dynamics and Supply Systems: A Transdisciplinary Approach. Campus Verlag, Frankfurt.
8. Hunter, Lori M. 2000. The Environmental Implications of Population Dynamics. Rand Corporation, New York.
9. Kar, Bimal Kumar 2002. Women Population of North East India: a Study in Gender Geography. Regency Publication, New Delhi.
10. Namboodiri, Narayanan Krishan 1996. A Primer of Population Dynamics. Springer, N York.
11. Prasad, B.K. 2004. Population and Family Life Education. Anmol Publication, New York.
12. Ranade, Prabha Shastri 1990. Population Dynamics in India. APH Publishing, New Delhi.

Ph.D. Course Work

Course Code
GRPC 107

Course Name
Applied Geomorphology

Credit: 04
Contact Hours: 60

Unit I

A Critical Analysis of Fundamental Concepts: Concepts of Dynamic Equilibrium versus Davis' and Penck's concepts; Time and space in Geomorphology; Recent Trends in Geomorphology.

Unit II

Climatic Geomorphology; Environmental Geomorphology.

Unit III

Systems in Geomorphology; Models in Geomorphology. Geomorphology: Economic, Relevance; Geomorphology in Ground Water studies.

Unit IV

Mapping Techniques in Geomorphology; Geomorphology in Soil Studies in Mapping; Geomorphology on Engineering Construction; Alluvial Fans and Flood plains- Morphology, Material and Processes.

Suggested Readings

1. Ahmed, E. 1985. Geomorphology. Kalyani Publishers, New Delhi.
2. Allison, Robert J. (ed.) 2002. Applied Geomorphology: Theory and Practice. John Wiley, Chichester U. K.
3. Bloom, A. L. 1998/ 2001. Geomorphology. 3rd edition. Prentice Hall of India, New Delhi.
4. Chorley, R.J., Schumm, S. A. and Sugden, D. E. 1984. Geomorphology. Methuen and Company Ltd., London.
5. Thornbury, W.D. 2005. Principles of Geomorphology. John Wiley, New York. Rev. Ed.
6. Goudie, Andrew (ed.) 2004. Encyclopedia of Geomorphology. Volume 2. Routledge, London.
7. King, C.A.M. 1966. Techniques in Geomorphology. Edward Arnold, London.
8. Kale, V. and Gupta, A. 2001. Introduction to Geomorphology. Orient Longman, Hyderabad.
9. Sparks, B.W. 1986. Geomorphology. Longmans, London.
10. Wooldridge, S.W. and Morgan, R.S. 1959. The Physical Basis of Geography: An Out Line of Geomorphology. Longman, London.