

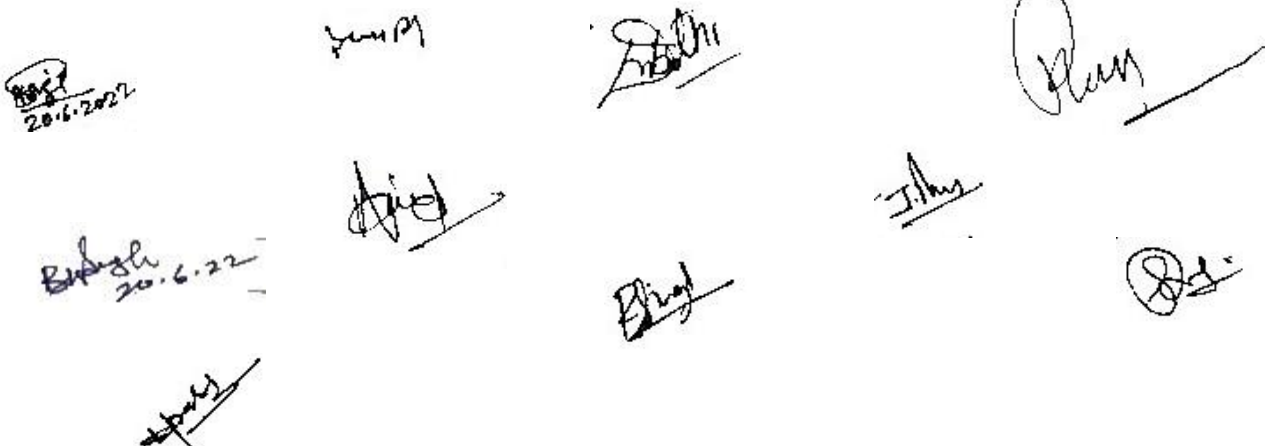
**DDU Gorakhpur University Gorakhpur**  
**Department of Geography**  
**Pre PhD Course Curriculum**

**Research Theme- Specific Courses**  
**GEO 601- Research Methodology**

Units	Unit Title	Course	Credits 6
1	Research: Definition, Type and Design	Research: Meaning, Significance and Types Research Design: Research Problem, Research Question, Hypothesis	
2	Data Sources & Preparing Reports	Sources of Data and Method of collections: Secondary Data: Census, NSS, CSO; Primary Data: Observational Method, Questionnaire, Interview, Case Study. Sampling Methods, Report Writing: Formatting and its presentation	
3	Ethics and Plagiarism	Publication Ethics: Definition, importance, best practices, violation of publication ethics. Intellectual honest & Research Integrity, Scientific Misconduct: Falsification, Fabrication and Plagiarism.	
4	Computer Applications	MS Word: Screen and its elements, creating, writing and formatting MS Excel & Power point: Basis of MS Excel, Performing, calculations on data, create and manage slides, Internet: Use in research work	

**Reference Books:**

1. Davis, P.C. (1985): Data Description and Presentation, Oxford, London.
2. Flowerdew, R. et.al. (1997): Methods in Human Geography: A Guide for Students Doing a Research Project, Longman, Harlow.
3. Goudie, A. (Ed) (2004): Encyclopaedia of Geomorphology, Routledge, London,
4. Gregory, D., Johnston, R., Pratt, G., Watts, M. and Whatmore, S. (2009): The Dictionary of Human Geography, Wiley-Blackwell, Singapore
5. Kothari, C.R. (1982): Research Methodology in Social Sciences, Inter India Pub., New Delhi.
6. Mishra, H.N. & Singh, V.P. (2002): Research Methodology in Geography, Rawat Publications, Jaipur.
7. Misra, R.P. & Ramesh, A. (1999): Fundamentals of Cartography, Concept Pub. Co., New Delhi.
8. Misra, R.P. (1985): Research Methodology, Concept Publishing Co., New Delhi.
9. Stoddart, R.H. (1982): Field, Techniques and Research Methods in Geography, Kendall Hunt, Dubuque.
10. Tandon, B.C. (1997): Research Methodology in Social Sciences, Chaitanya Pub., Allahabad.
11. Warf, B. (Ed)(2006): Encyclopedia of Human Geography, SAGE Publications, London.


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## Research Theme- Specific Courses

### GEO 602- Applied Research Advance Physical Geography & Geo-spatial Study

Units	Topic	Course	Credits 6
1	Landscape Development	Models of Landscape Development, Slope Evolution and Classification, Hill Slope Evolution Theories	
2	Basin Morphometry	Morphometric Analysis and its methods: Hypsometric, Altimetric Frequency & Clinographic Analysis. Methods of Stream Ordering; Frequency and Density of the Drainage	
3	Applied Climatology	Climate & Landforms, Vegetation, Agro-climatology, Human Health and urban Heat Islands	
4	Environment and Disaster Management	Environmental Impact Assessment, Historical Evolution of Scientific development in Environmental issues, Disaster Risk assesment and Management	
5	Basics of RS and GIS to mapping	Remote Sensing, Principles and concept of Remote Sensing: Radiation and Resolution concepts, Basic concepts and essential elements of GIS – Map concepts; geo-referencing	
6	Geo-spatial Application in Geo-environmental studies	Application and Integration of remote sensing data with GIS application; Digital terrain modeling (DTM), Basin morphology, surface temperature mapping, Hazard mapping	

#### Suggested readings:

1. Anhert, F. (1996): Introduction to Geomorphology, Edward Arnold, London.
2. Bloom. A.L. (1979): Geomorphology, Prentice Hall, New Jersey, USA.
3. Chorley, R. J., Schumm, S.A. and Sugden, D.E. (1984): Geomorphology, Methuen, London.
4. Dayal, P. (1987): Geomorphology (in Hindi), Patna.
5. Dikshit, K.R. et.al. (1994): India Geomorphological Diversities, Rawat Pub. Jaipur.
6. Fairbridge, R.W. (1968): Encyclopaedia of Geomorphology, Reinholdts, New York.
7. Kale, V.S. and Gupta, A. (2001): Introduction to Geomorphology, Orient Longman, Hyderabad.
8. King, C.A.M. (1968): Techniques in Geomorphology, Edward Arnold, London.
9. Melhorn, W.N. & Flemal, R.C. (1981): Theories of Landforms Development, George Allen Unwin, London.
10. Singh, Savindra (2005): Geomorphology, PrayagPustakBhawan, Allahabad. (Hindi & English)
11. Small, R.J. (1976): The Study of Landforms, Cambridge University Press, Cambridge.
12. Sparks, B.W. (1988): An Introduction to Geomorphology, Longman, London.
13. Steers, A. (1958). The Unstable Earth, Methuen, London
14. Strahler, A.H. and Strahler, A.N. (1992): Modern Physical Geography, John Wiley, New York
15. Strahler, A. N. (1964): Quantitative Geomorphology of Drainage Basins and Channel Networks, In: Handbook of Applied Hydrology, VenTe Chow, Ed., Section 4-II, McGraw-Hill Book Company, New York
16. Tarbuck, E. J. and Lutgens, F. K. (2009): Earth Science, Prentice Hall, New Jersey
17. Thornbury, W.D. (1969) : Principles of Geomorphology, New Age International (p) Ltd., New Delhi.
18. Tricart, J. & Cailleux, A. (1972): Introduction to Climatic Geomorphology, Longman, London.
19. Twidale, C.R. (1976): Analysis of Landforms, John Wiley. London.
20. Wooldridge, S.W. and Morgan, R.S. (1959): The Physical Basis of Geography- An Outline of Geomorphology. Longmans Green, London
21. Alexander, D. (1993): Natural Disasters, Springer, Berlin
22. Bolt, B.A. et.al. (ed.) (1950): Geological Hazards, Springer, Verlay, New York.
23. Burton, I. et.al. (1978) Environment as Hazards, O.P.O., New York.
24. Goudie, A. (1990): Geomorphological Techniques, Unwin Hyman, London
25. Hart, M. G. (1986): Geomorphology: Pure and Applied, George Allen and Unwin, London
26. Kusky, T. (2012): Encyclopedia of the Hazardous Earth, Viva Books, New Delhi
27. Petak, W.J. and Atkinson, A.D. (1982): Natural Hazards Risk Assessment and Public Policy, Springer, Verlay, New York.

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28. Roy, P.S. et.al. (2000): Natural Disaster and their Mitigation, ITC Publication.
29. Valdiya, K. S. (1987): Environmental Geology, Tata McGraw Hill, New Delhi
30. White, G.F. (ed) (1974): Natural Hazards, Local, National and Global, Oxford University Press, London.
31. डॉ. देवीदत्तचौनियाल (2010) सुदूरसंवेदनतथाभौगोलिकसुचनाप्रणाली, प्रकाशक : शारदापुस्तकभवन, नईदिल्ली।
32. Nag, P., Introduction to GIS, Concept India, New Delhi, 2008.
33. Agarwal N.K., Essentials of GPS, Spatial Networks, 2004.
34. Goutam, N.C., Fundamentals of GIS, Pink Pubs. 1993.
35. Lillesand, Thomas M. Remote Sensing and Image Interpretation. Wiley India, New Delhi. 2016.
36. Joseph George. Fundamentals of Remote Sensing, Universities Press. India. 2016.
37. Schowengerdt, R. A. Remote Sensing: Models and Methods for Image Processing. Elsevier, Amsterdam. 2013.
38. Jha, M.M. and Singh, R.B., Land Use: Reflection on Spatial Informatics Agriculture and Development, Concept, New Delhi, 2008.
39. Kraak M.J. & Ormeling F., Cartography: visualization of Geo-spatial Data, Pearson Education Asia., 2nd Ed., 2004.
40. Burrough P.A. & McDonnell R.A., Principles of GIS for Land Resource Assessment, OUP, 2nd ed. 1998.
41. Chrisman N., Exploring Geographic Information Systems, Wiley, 1997.
42. Martin D. GIS and their Socio-economic Applications, Routledge, 2nd ed., 1997.

### Research Theme- Specific Courses

#### GEO 603- Applied Research in Human & Cultural Geography

Units	Unit Title	Course	Credits 6
1	Resource & Development	Man and Environment Relationships, Concept of Resource, Classification of Resources, Emerging issues. Sustainable Resource development.	
2	Population & Planning	Population Growth and Distribution pattern, Demographic Transition Theory, global migration causes and consequences, Population Planning with special reference to India,	
3	Agricultural Methods	Approaches of Agricultural Research, Agriculture in Innovations & Diffusion, Methods of Agricultural Productivity; Measurement – Kendall's Ranking Coefficient Method, Weighted Ranking Coefficient Method	
4	Cultural Research	Cultural research in Geography, methodology and approaches, Cultural Landscape, Culture processes and theories of culture growth, Culture and Indian knowledge system.	
5	Heritage and Tourism	Cultural heritage tourism, heritage issues and prospects: policy and planning, Master Plan and Heritage Zone, Tourism policies and Management, Impact Assessment of tourism development: Preparation of questionnaire.	
6	Transport and Urban Model	Network analysis- Concept of accessibility and connectivity, Role of Transport in Regional development, Urban Growth Models, Urban Policies & Smart Cities, Sustainable Development Goals.	

#### Suggested readings:

1. Berry, B. J.L. (1976): Geography of Economic Systems, Prentice Hall, Englewood Cliff
2. Boyce, R. D. (1974): Bases of Economic Geography, Holt, Rinehart and Winston, New York
3. Hartshorne, T. A. and Alexander, J. W. (2010): Economic Geography, PHI, New Delhi
4. Holechek, J.L. et.al. (2000): Natural Resources: Ecology, Economics and Policy, Prentice Hall, New Jersey.
5. Kellog, C.F. (1986): Food, Soil and People, The Manhattan Publishing Co. New York.
6. Rao, B.P. (2006): Resources and Environment, Vasundhara, Prakashan, Gorakhpur.
7. Siddhartha, K. (2000): Economic Geography: Theories, Process and Patterns,
8. Simmans, I.G. (1981): The Ecology of Natural Resources, Edward Arnold, London.

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9. Singh, Jagdish (1998): SansadhanBhoogol, GyanodayaPrakashan, Gorakhpur.
10. Smith, D. M. (1971): Industrial Location: An Economic Geographical Analysis, John Wiley and Sons, New York.
11. Singh, K.N and Siddiqui, A (2012): Economic Geography, PrayagPustakBhawan, Allahabad
12. Smith, G.H. (ed.) (2000): Conservation of Natural Resources, John Wiley, New York.
13. Agarwal, S. M. (1974): India's Population Problems, McGraw Hill Publishing Co. Ltd., New Delhi.
14. Beaujeu, Garnier (1978): Geography of Population, Longman, London.
15. Berelson, B. (1974): Population Policy in Developed Countries, MacMillan, London
16. Bhende, A. A. and Kanitkar, T. (2011): Principles of Population Studies, Himalaya
17. Chandana, R. C. & Sidhu, M.S (2013): Population Geography, Kalyani Publications, Delhi
18. Desoza, A. A. (1983): Indian Population Problem in Perspective and Social Action, Concept Publications, New Delhi
19. Hazel, B. R. (1994): Population Geography, Singapore Publishers Pvt. Ltd., Singapore
20. Hiralal (2000): JansankhyaBhoogol, Radha Publications, New Delhi.
21. Panda, B.P. (1991): Population Geography (in Hindi), Madhya Pradesh Hindi Granth Academy, Bhopal.
22. Sundaram, K.V. (1985): Population Geography, Heritage Publishers, New Delhi.
23. Trewartha, G.T. (1969): Geography of Population: World Patterns, John Wiley & Sons, New York.
24. Grigg, D. (1995): An Introduction to Agricultural Geography, Routledge, London
25. Hussain, Majid (1998): Agricultural Geography, Rawat Publications, Jaipur.
26. Kumar, Pramila & Sharma, S.K. (1990) : Agricultural Geography (Hindi), M.P. Hindi Granth Academy, Bhopal.
27. Misra, R.P. (1968): Diffusion of Agricultural Innovation, Concept Publication, New Delhi.
28. Mohammad Ali (1978) Studies in Agricultural Geography, Rajesh Publishers, New Delhi
29. Mohammad, Noor (1980): Perspectives in Agricultural Geography (Vol. I-IV), Concept Pub. Co., New Delhi.
30. Negi, B.S. (1980): Agricultural Geography, Kdarnath Ramnath, Meerut.
31. Singh, B.B. (1979): Agricultural Geography (Hindi), GyanodayaPrakashan, Gorakhpur.
32. Singh, Jasbir & Dillon, S.S. (1984): Agricultural Geography, Tata Mc Graw Hill Pub., New Delhi.
33. Singh, S.N. (1994): Agricultural Development in India, Kaushal Publications, Shillong.
34. Symons, L. (1970): Agricultural Geography, G. Bell and Sons Ltd., London
35. Tiwari, R.C. & Singh, B.N. (1994): Agricultural Geography (Hindi), PrayagPustakBhawan, Allahabad.
36. Vaidya, B. C. (1997): Agricultural Land use in India, Manak Publications, New Delhi
37. Ashworth, G.J. and Dietvorst, A.G.J. (eds.) (1995): Tourism and Spatial Transformations: Implications for Policy and Planning. CAB International, Warwick UK.
38. Anderson, K., Domosh, M., Pile, S. And Thrift, N. (2003): Handbook of Cultural Geography, SAGE Publications, London
39. Bansal, S.C. (2008) Urban Geography (in Hindi), Meenakshi Prakashan, Meerut.
40. Bose, A. (1980): India's Urbanisation, Tata McGraw Hill, New Delhi.
41. Carter, H. (1979): The Study of Urban Geography, Arnold Heinemann, London.
42. Gibbs, J. P. (Ed.), (1961): *Urban Research Methods*, Princeton.
43. Hall, T. (2006): Urban Geography, Routledge, London.
44. Karan, M.P. (1991) Urban Geography (in Hindi), Kitab Ghar Acharya Nagar, Kanpur Houle. B.S. (1973): Transport and Development, Mc Millan, London.
45. Hurst, Elliot (1973): Transport Geography – Readings and Comments, Mc Graw Hill Book Co. New York.
46. Jain, J.K. (1997): Transport Economics, Chaitanya Pub. House, Allahabad.
47. Kansky, J. (1963): Structure of Transport Network, University of Chicago, Deptt. of Geography.
48. Raza, M. & Agrawal, Y. (1986): Transport Geography of India, Concept Pub., New Delhi.

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