

D.D.U. Gorakhpur University, Gorakhpur
Department of Geography
M.A. in Geography, NEP Programme
2024

The M.A Curriculum in Geography consists of four semesters spread over two years. In addition to core paper, few elective papers are offered in each semester. There shall be four Theory papers (Three Core and One Elective) in each semester, along with internal assessment in each paper. Besides, there shall be one practical in each semester.

Programme Specific Outcomes

After going through this programme, students should be able to:

- Understand the theoretical and applied aspects of geography as a branch of Knowledge.
- Establish Spatio-temporal analysis of geographical phenomena and analyse man environment relations in a better way.
- Develop their field observations, data gathering and interpretations skill.
- Comprehend key methodological and different approaches to interpret geographical facts.
- Enhance their practical skill through field visits and first-hand experience of tools/equipment.
- Familiarize with the applied aspects in different sub branches of geography
- Identify frontier area of research and sub-branches of geography for further research.
- Broaden their job prospects in qualifying various competitive examinations and join various industries and research institutes like Tourism, Rural Development, Disaster Management, Environmental Planning, and Cartography to pursue a bright career.

M. A. in Geography, NEP Programme

Paper Code	Paper Title	Course	Credit
Semester I			
MGEC501N	Geographical Thought: Concepts and Issues	Theory - Core	4+0
MGEC502N	Advance Geomorphology	Theory - Core	4+0
MGEC503N	Physical and Economic Geography of India	Theory - Core	4+0
MGEP504N	Cartograms & Projections	Practical	0+4
MGEE505N	Advance Economic Geography	Theory- Elective	4+0
MGEE506N	Remote Sensing	Theory- Elective	4+0
MGEE507N	Rural Development	Theory- Elective	4+0
Semester II			
MGEC508N	Climatology	Theory - Core	4+0
MGEC509N	Research Methodology	Theory - Core	4+0
MGEC510N	Regional Development & Planning of India	Theory - Core	4+0
MGEP511N	System Analysis, Geological Maps and Morphometric Analysis	Practical	0+4
MGEE512N	Political Geography	Theory- Elective	0+4
MGEE513N	Urban Geography	Theory- Elective	4+0
MGEE514N	Transport Geography	Theory- Elective	4+0
MGEO515N	General Geography of India	Open- Elective	4+0
Semester III			
MGEC516N	Oceanography and Hydrology	Theory - Core	4+0
MGEC517N	Cultural Geography	Theory - Core	4+0
MGEC518N	Geospatial Techniques	Theory - Core	0+4
MGEP519N	Tour & Tour Based Report	Practical	0+4
MGEP520N	Research Project/ Dissertation	Project	0+4
MGEE521N	Heritage Geography	Theory- Elective	4+0
MGEE522N	Agricultural Geography	Theory- Elective	4+0
MGEE523N	Environmental Hazards and Disaster Risk Reduction	Theory- Elective	4+0
Semester IV			
MGEC524N	Environment and Ecology	Theory - Core	4+0
MGEC525N	Statistical Methods in Geography	Theory - Core	4+0
MGEC526N	Population Geography	Theory - Core	0+4
MGEP527N	Survey & Survey Camp based Project	Practical	0+4
MGEP528N	Research Project/ Dissertation	Project	0+4
MGEE529N	Resource Appraisal & Management	Theory- Elective	4+0
MGEE530N	Geography of Tourism	Theory- Elective	4+0
MGEE531N	Social Geography	Theory- Elective	4+0

Semester- I

Paper Code: MGEC501N

Course: Theory -Core

Title of the Paper: Geographical Thought: Concepts and Issues

Credits 4+0

Units	Topics	Sub Topics	Periods
1	Introduction	Indian Knowledge System, Paradigm Shift in Geography, Positivism in Geography	15
2	Quantitative Revolution	Quantitative Revolution and its Impact; Systems and Models in Geography; Theories and Laws in Geography.	15
3	Major Concepts	Concept of Earth Surface; Concept of landscape; Concept of Region; Typology and Regionalization; Concept of Spatial Organization.	15
4	Humanistic Geography	Radical Geography: Geography as a Science of Human Welfare; Behavioralism & Phenomenology in Geography Concept of Post-modernism in Geography; Feminist & Gender Geography	15
Continuous Internal Assessment			

Course Outcomes

- Introduce the students changing Paradigm in Geography based on various thoughts from ancient to modern periods,
- It enhances the conceptual and philosophical knowledge of Geography.
- It explain show Geography as a Science of HumanWelfare.

Reference Books:

1. Adhikari, Sudipto (2009): Fundamentals of Geographical Thought, Chaitanya Pub. House, Allahabad.
2. Arild, H. J. (1999): Geography: History and Concepts, SAGE Publications, London
3. Chorley, R. J. (Ed): Directions in Geography, Matheun and Co., London
4. Chorley, R.J. & Haggett, P. eds. (1967): Integrated Models in Geography, Methuen, London.
5. Davies, W.K.D. (1972): The Conceptual Revolution in Geography, University of London Press, London.
6. Dear, M. J. and Flusty, S. (2002): The Spaces of Postmodernity: Readings in Human Geography. Blackwell Publishers, Oxford.
7. Dickinson, R.E. (1969): The Makers of Modern Geography, Routledge and Kegan Paul, London.
8. Dikshit, R. D. (2004): Geographical Thought. A Critical History of Ideas. Prentice-Hall of India, New Delhi. (in English and Hindi).
9. Dikshit, S.K. (2001): Bhaugolik Chintan Ka Udbhav Avam Vikas, Vishwavidyalaya Prakashan, Varanasi.
10. Hartshorne, R. (1959): Perspectives on the Nature of Geography, John Murray, London.
11. Harvey, D. (1969): Explanation in Geography, Edward Arnold, London.
12. Harvey, M. E. and Holly, P.B. (2002): Themes in Geographic Thought. Rawat Publications., Jaipur and New Delhi.
13. Hubbard, P., Kitchin, R., Bartley, B. and Fuller, D. (2002): Thinking Geographically: Space, Theory and Contemporary Human Geography. Continuum, London.
14. Husain, Majid (2001): Evolution of Geographical Thought, Rawat Publications, Jaipur.
15. James, P.E. & Jones, C.F. (1954): American Geography: Inventory & Prospect, Syracuse Univ. Press, New York.
16. James, P.E. (1980): All Possible World: A Hundred Years of Geography, Sachin Pub. Jaipur.
17. Johnston, R, Gregory D, Pratt G, Watts M. and Whatmore S. (2003): The Dictionary of Human Geography. Blackwell Publishers, Oxford. 5th edition.
18. Johnston, R.J. (1984): Geography and Geographers, Arnold Heinemann, London.
19. Johnston, R.J. (1985): The Future of Geography, Methuen and Company Ltd., New York. (2003 edition published).
20. Johnston, R.J. and Sidaway, J.D. (2004): Geography and Geographers. 6th edition, Edward Arnold, London.

Code: MGEC502N

Course: Theory - Core

Title of the Paper: Advance of Geomorphology

Credits 4+0

Units	Topics	Sub Topics	Periods
1	Fundamentals of Geomorphology	Meaning, Scope & Evolution of Geomorphology; Fundamental Concepts of Geomorphology; Concept of Morphogenetic region.	15
2	Theories & Models in Geomorphology	Theories of Landscape Development (Davis, Penck, JT Hack, SA Schumm; Plate Tectonics Associated Process; Slope Development Approach and Theories.	15
3	Techniques in Geomorphology	Denudation chronology, Erosion Surface; Relief and Fluvial Morphometry; Channel Morphology; Digital Elevation Model (DEM).	15
4	Applied Geomorphology	Application of Geomorphology: Disaster Management and Civil Projects: Dams (Tehri and Damodar) and Road Construction (Atal Tunnel, Uttarakhand Tunnel).	15
Continuous Internal Assessment			

Course Outcomes

- Introduces concept of time scale in Geomorphology
- Impart knowledge on different models of landscape development
- Explain its scope on applied aspects with respect to civil projects, disaster management, minerals and energy

Reference Books:

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. Miller, A. A. (1953): The Skin of the Earth, Methuen and Co. Ltd., London
 11. Ollier, C.D. (1981): Tectonics and Landforms, Longman, London.
 12. Sharma, H.S. (1987): Tropical Geomorphology, Concept Publishing Company, New Delhi.
 13. Sharma, H.S. and Kale, V.S. (2009): Indian Geomorphology, Rawat Pub. Jaipur.
 14. Singh, Savindra (2005): Geomorphology, PrayagPustakBhawan, Allahabad. (Hindi & English)
 15. Small, R.J. (1976): The Study of Landforms, Cambridge University Press, Cambridge.
 16. Sparks, B.W. (1988): An Introduction to Geomorphology, Longman, London.
 17. Steers, A. (1958): The Unstable Earth, Methuen, London
 18. Strahler, A.H. and Strahler, A.N. (1992): Modern Physical Geography, John Wiley, New York
- Strahler, A. N. (1964): Quantitative Geomorphology of Drainage Basins and Channel Networks, In: Handbook of Applied Hydro.

Code: MGEC503N

Course: Theory- Core

Title of the Paper: Physical and Economic Geography of India

Credits 4+0

Units	Topics	Sub Topics	Periods
1	Geology & Relief	Geological Structure of India; Origin of Himalayas, Origin of Drainage Systems of India. Delimitation & Characteristics of Physiographic Regions	15
2	Climatic Characteristics	Mechanism and Recent Trends of the Indian Monsoon; Climatic Regions; Agro-Climatic Regions.	15
3	Resource Base	Population growth and distribution; Population Resource Regions; Role of Green Revolution; Agricultural Regions & New Trends in Indian Agriculture; Mineral Resource Regions	15
4	Industrial Development	Industrial Policies & Trend of Industrialization; Industrial Regions, Impact of Globalization on Indian Economy; Regional Development and Disparities, Problems & Prospects of Industrially Backward regions of India	15
Continuous Internal Assessment			

Course Outcomes

- Introduces physical aspects of the Indian sub-continent.
- Appraise the climatic characteristics and resource base of India.
- Discuss the pattern and level of development in India.

Reference Books:

1. Bansal, S.C. (1999): Advanced Geography of India, Meenakshi Publication, Meerut.
2. Chauhan P.R. (2001): Bharat Ka Vrihat Bhoogol, Vasundhara Prakashan, Gorakhpur.
3. Deshpande C.D (1992): India: A Regional Interpretation, Northern Book Centre, New Delhi.
4. Gautam, Alka (2001): Geography of India, Sharda Pustak Bhawan, Allahabad.
5. Govt. of India : Economic Survey, Ministry of Finance, New Delhi (Different Issues)
6. Hussain, Majid (2008): Advance Geography of India, Tata McGraw Hill, New Delhi.
7. Johnson, B.L.C. (1983): Development in South Asia, Penguin Books, Harmondsworth.
8. Khullar, D.R. (2006): India: A Comprehensive Geography, Kalyani Pub., New Delhi.
9. Krishnan, M. S. (1968): Geology of India and Burma, 4th edition. Higginbothams Private. Ltd., Madras.
10. Nag, P. and Gupta S. S. (1992): Geography of India, Concept Publishing. Company, New Delhi.
11. Sharma, T. C. (2003): India: Economic and Commercial Geography, Vikas Publication., New Delhi.
12. Singh, J. (2003): India: A Comprehensive and Systematic Geography, Gyanodaya Prakashan, Gorakhpur.
13. Singh, R. L. (ed.) (1971): India. A Regional Geography, National Geographical Society of India, Varanasi.
14. Spate, O.H.K. & Learmonth, A.T.A. (1954): India & Pakistan, Methuen, London.
15. Tiwari, R. C. (2007): Geography of India, Prayag Pustak Bhawan, Allahabad
16. Wadia, D. N. (1959): Geology of India. MacMillan and Company, London and Madras.

Code: GOEP504N

Course: Practical

Title of the Paper: Cartography: Projections and Cartograms

Credits 0+4

Units	Topic	Sub topic	Periods
1	Classification and Types	Meaning, Classification, and Characteristics of Projections;	5
2	Projections with mathematical calculation	Lambert's Conical, Polyconic, Galls', Equatorial Zenithal Projection: Gnomonic, Stereographic and Orthographic Cases; Mollweide & Sinusoidal: Simple and Interrupted	15
3	Contouring	Block Diagram, Raise and Henney Method, Hachures	10
4	Cartograms	Climatic Diagrams; Ergo-graph – Climatic and Circular; Water Budget; Multiple Dot & Spherical map	30
Continuous Internal Assessment			60
Assignment/ Presentation/Exercises/Field Work			

Course outcomes

- Impart drawing skill on map projections, various maps and diagrams
- Imparting the skills to understand and draw cartograms

Reference Books:

1. Chauhan P.R. (2014): PrayogamakBhoogol, VasundharaPublicaiions, Gorakhpur
2. Davis, R.E. and Foote, F.S.: Surveying - Theory and Practices, Tokyo.
3. Kanetkar, T.P. & Kulkarni, S.V.: Surveying and Leveling, Pune.
4. Mailing, D.H. (1973): Co-ordinate Systems and Map Projections. George Philip and Sons Ltd.
5. Misra, R.P. and Ramesh, A. (1999): Fundamentals of Cartography. Concept Publishing Company, New Delhi.
6. Monkhouse, F.J. and Wilkinson, H. R (1962): Maps and Diagrams, Methuen and Company Ltd. and Company Ltd., London.
7. Raisz, E. (1962): Principles of Cartography. McGraw Hill Books Company, Inc., New York.
8. Robinson (1991): Aerial Photography and Cartography, Mac Millan, London.
9. Robinson, A. H. H., Sale R., Morrison J. and Muehrcke, P. C (1984): Elements of Cartography, 6th edition John Wiley and Sons, New York.
10. Sahani, P.B. (1993): Advance Surveying, New Delhi.
11. Singh, J. et.al. (1990): BhaumikiyaManchitro Ki Ruprekha, VasundharaPrakashan, Gorakhpur.
12. Singh, L.R. (2001): Practical Geography, ShardaPustakBhawan, Allahabad.
13. Singh, R. L. and Singh, Rana P.B. (1993): Elements of Practical Geography. Kalyani Publishers, Ludhiana and New Delhi. (English and Hindi editions).
14. Tiwari, R.C. and Tripathi, Sudhakar (2001): AbhinavPrayogamakBhoogol, PrayagPustakBhawan, Allahabad.

Code: MGEE505N

Course: Elective

Title of the Paper: Advance Economic Geography

Credits 4+0

Units	Topic	Subtopic	Periods
1	Introduction	Nature and scope; Systematic Development of Economic Geography, Approaches and Fundamental Concept of Economic Geography,	15
2	Application & Relevance of Location and Economic Theories	Location Theories-Von-Thunen; Industrial Location Theory-Weber, Hoover and Losch; Central Place Theory of Christaller.	15
3	Economic Development	World Economic Development, Special Economic Zones and Technology Parks, Theories of Economic development- Growth Pole Theory, Myrdal's Cumulative Causation Theory., Sustainable development.	15
4	International Trade	Factors influencing the international trade, Ricardian Theory of International trade, Emerging Trends of World Trade Pattern, Regional Trade Blocks: SAARC and ASEAN	15
Continuous Internal Assessment			

Course Outcomes

- Introduces nature, scope, methods, approaches and recent trends in economic geography
- Impart knowledge on different locational theory
- Able to explain changing concept of development, world trade patterns and theory on International trade.

Reference Books:

1. Alexander, J.W. (2012): Economic Geography, Prentice Hall of India, New Delhi.
2. Berry, B.J.L. et al. (1976): Geography and Economic Systems, Prentice Hall, Englewood Cliff.
3. Boyce, R.D. (1990): Bases of Economic Geography, Holt Rinehart & Winston, New York. Cliffs, N.J. Prentice.
4. Dreze, J. and Sen, A. (1996): Economic Development and Social Opportunity. Oxford University Press, New Delhi.
5. Haggett, P. (1966): Locational Analysis in Human Geography, St. Martin's Press, New York.
6. Hanink, D.M. (1997): Principles and Applications of Economic Geography, Economy,
7. Hartshorne, T.A. & Alexander, J.W. (1994): Economic Geography, Prentice Hall of India, New Delhi.
8. Hodder, B.W. & Lee, R. (1996): Economic Geography, Methuen, London.
9. Janaki, V.A. (1985): Economic Geography, Concept Publishing Co., New Delhi.
10. Jones & Darkenwald (1960): Economic Geography, New York.
11. Knox, P. and J. Agnew (1998): The Geography of the World Economy. Arnold, London.
12. Lloyd, P. And P. Dicken (1972): Location in Space: A theoretical approach to Economic Geography, Harper and Row, New York.
13. McCarty, H.H. and J.B. Lindberg (1966): A preface to Economic Geography, Englewood, New York.
14. Rostov, W.W. (1960): The Stages of Economic Growth, Cambridge Univ. Press, London.
15. Singh, K.N and Siddiqui, A (2012): Economic Geography, PrayagPustakBhawan, Allahabad
16. Singh, K.N. & Singh, J. (1996): ArthikBhoogolKeMooltatva, GyanodayaPrakashan, Gorakhpur.
17. Smith, G.H. (2000): Conservation of Natural Resources, John Wiley, New York.

Code: MGEE506N

Course: Elective

Title of the Paper: Remote Sensing

Credits 4+0

Units	Topics	Sub-topics	Periods
1	Basics of Remote Sensing	Definitions, Scope, potentials and limitations of Remote Sensing; Development in the world and in India, Stages of Remote Sensing, Principles and concept of Remote Sensing: Radiation and Resolution concepts	15
2	Principle of Electromagnetic Radiation	Principle of Electromagnetic Radiation, Electro-magnetic Radiation (EMR)- The nature of radiation; Radiation at source; Radiation in propagation; Radiations at its target; Radiation from sun; Radiation from the earth Properties of EMR; Atmospheric windows; Perturbing effects of the atmosphere.	15
3	Sensors and Sensors	Fundamental properties of sensors; types of sensors- Passive and active sensors; Optical scanner, thermal scanner; Multispectral scanner. Types of Remote Sensing, Platforms and Sensors, LANDSAT And IRS Satellite System	15
4	Geometrics of Aerial photographs	Geometric characteristic of aerial photographs- scale, overlap, side lap, vertical exaggeration, and geometric resolution. Introduction to Elements of Photographic System: Camera System, Film. Basic Geometry & Characteristics of Aerial Photograph, Scale, Image Parallax, Ortho Photo. Photo features, relief displacement.	15
Continuous Internal Assessment			

Course outcomes

- It gives an overview of remote sensing process
- It introduces aerial photo and photo grammetry and satellite remote sensing
- Enables image processing procedure and identify applications of remote sensing

Reference Books:

1. American Society of Photogrammetry (1983): Manual of Remote Sensing, Falls Church, VA.
2. Avery, T. E. and Berlin, G.L. (1992): Fundamentals of Remote Sensing and Air photo Interpretation, Mc Millan, N. York.
3. Barrett, E.C.& Curtis, L.F. (1992): Introduction to Environmental Remote Sensing, Chapman & Hall, New York.
4. Campbell, J. B. (2002): Introduction to Remote Sensing. 5th edition. Taylor and Francis, London.
5. Chaunial, D.D. (2001): Remote Sensing and G.I.S. (in Hindi), ShardaPustakBhawan, Allahabad.
6. Cracknell, A.P. and Hayes, L.W.B. (1993): Introduction to Remote Sensing, Taylor & Francis, London.
7. Curran, P.J. (1985): Principles of Remote Sensing, Longman, London.
8. Floyd, F. and Sabins, Jr. (1986): Remote Sensing: Principles and Interpretation, W.H. Freeman, New York.
9. George Joseph (2005): Fundamentals of Remote Sensing, New Delhi.
10. Guham, P. K. (2003): Remote Sensing for Beginners. Affiliated East-West Press Private Ltd., New Delhi.
11. Harry, C.A. (ed.) (1978): Digital Image Processing, IEEE Computer Society, California
12. Hord, R.M. (1982): Digital Image Processing of Remotely Sensed Data, Academic Press, New York.
13. Jensen, J.R. (2000): Remote Sensing of the Environment, Dorling Kundersley Publishing Inc. John Wiley and Sons, Singapore
14. Leuder, D.R. (1959): Aerial Photographic Interpretation: Principles and Application. McGraw Hill, New York.
15. Lillesand, T.M. and Kiefer, R.W. (2000): Remote Sensing and Image Interpretation. 4th edition. John Wiley and Sons, New York.
16. Nag, P. (ed.) 1992: Thematic Cartography and Remote Sensing, Concept Publishing. Company, New Delhi.
17. Sabins, F. F. (1996): Remote Sensing: Principles and Interpretation, W.H Freeman, New York
18. Sharma, H.S. (2003): Remote Sensing for Resource Survey, Concept Publication, New Delhi.
19. Spurr, R. (1960): Photogrammetry and Photo Interpretation, The Roland Press Company, London.

20. Survey of India, (1973): Photogrammetry, Survey of India, Dehradun.

Code: MGEE507N

Course: **Elective**

Title of the Paper: Rural Development

Credits 4+0

Units	Topics	Sub Topics	Periods
1	Introduction	Concept, Approach and Need of Rural Development, Sectoral Imbalance in Rural Development	15
2	Spatial Linkages	Panchayati Raj: Structure and Role in Rural Development Rural-Urban Divide and Continuum, Core and Periphery Relations. Backward and Forward Linkages of Rural Economy.	15
3	Major Issues	Issues and Problems of Rural Areas, Causes & Consequences of Rural Population Migration in India. Transition of Rural Livelihood: Risk and Opportunities	15
4	Policies & Programmes	Area Based Approach to Rural Development: DPAP, PMGSY, Target Group Approach to Rural Development: SJSY, MNREGA, Jan Dhan Yojna IRDP, PURA,	15
Continuous Internal Assessment			

Course outcomes

- It introduces basic concept of rural development and its approaches.
- Appraise problems of rural areas and change in rural livelihood.
- Able to analyse policy planning and integrated rural development.

Reference Books:

1. Arora, R.C. (1999): Integrated Rural Development, S. Chand & Company, New Delhi.
2. Bhaduria, B.P.S. (1988): Rural Development Strategy and Perspective, Anmol Publication, Delhi.
3. Chauhan, P.R. (1996): Regional Disparities in the Levels of Development, AMGI, Gorakhpur.
4. Dak, T.M. (1987): Social Inequalities and Rural Development, National Publishing House, New Delhi.
5. Desai, Basant (1988): Rural Development VI Vols., Himalaya Publishing House, Mumbai.
6. Dubey, Bechan (1990): Integrated Rural Development (Hindi), Mishra Trading Company, Varanasi.
7. Mishra, R.P. (1987): Rural Development – Capitalist and Socialist Paths, Concept, New Delhi.
8. Misra, R.P. & Sundaram, K.V. (1988): Rural Area Development: Perspective and Approaches, Sterling Publishers, New Delhi.
9. Sharma, S.K. (1990): Integrated Rural Development: Approaches, Strategy and Perspectives, Abhinav Publication, New Delhi.
10. Singh, Katar (1990) Rural Development : Principles, Policies and Management, Sage Publications, New Delhi.
11. Singh, S.K. (2002): Rural Development Policies & Programmes, Northern Book Centre, New Delhi.
12. Srivastava, V.K., Sharma N. & Chauhan, P.R. (2002): Pradeshik Niyojan Avam Santulit Vikas, Vasundhara Prakashan, Gorakhpur.
13. Dikshit, S.K. (2012): Population and Regional Development, Radha Publication, New Delhi.

Semester- II

Code: MGEC508N

Course: Theory -Core

Title of the Paper: Climatology

Credits 4+0

Unit	Topic	Sub-topics	Periods
1	Introduction to climate	Weather and Climate, Nature and Scope of Climatology; Electromagnetic spectrum; Insolation; Lapse rate and Inversion of Temperature; Stability and instability.	15
2	General Circulation	Winds and general circulation models; Humidity, Fog and Clouds type; Precipitation & its type; Mechanism of Monsoon – Recent Concepts, El-Nino, La- Nina and ENSO Event.	15
3	Front and cyclone	Air Masses, Fronts & Frontogenesis; Cyclone: Tropical and Temperate; Anti-cyclone.	15
4	Climatic classification and changes	Koppen's, Thornthwaite's & Trewartha's Classification; Climate Change; Weather Forecasting	15
Continuous Internal Assessment			

Course outcomes

- Introduces the meaning, scope and development of modern climatology
- Critically examine the mechanism of monsoon and climatic regionalization.
- Comprehend circulation of atmosphere, human impact on the climate and applied climatology.

Reference Books:

1. Banerji, R.C. & Upadhyay, D.S. (1999): Mausam Vigyan, Rajasthan Hindi Granth Academy, Jaipur.
2. Critchfield, H.J. (2002): General Climatology, Prentice Hall of India, New Delhi.
3. Hobbs, J.E. (1983): Applied Climatology, Butterworths, London.
4. Kendrew, W.G. (1972): Climatology, Oxford Uni. Press.
5. Lal, D.S. (2001): Climatology, Chaitanya Pub. House, Allahabad.
6. Lockwood, J.G. (1974): World Climatology and Environmental Approach, Edward Arnold, London.
7. Mathur, J.R. (1974): Climatology: Fundamentals and Applications, Mc Hill Book Company, New York.
8. Negi, B.S. (1999): Climatology and Oceanography (in Hindi), Kedarnath Ramnath, Meerut.
9. Rob Van Den Berg (2009) Evaluating Climate Change and Development. Prentice Hall, Englewood Cliffs, New Jersey 0762, 1998
10. Sidhartha, K. (2002): Atmosphere, Weather and Climate, Kislav Pub. Pvt. Ltd., New Delhi.
11. Singh, Savindra (2005): Climatology, Prayag Pustak Bhawan, Allahabad.
12. Subrahmaniam, V.P. (1992): Contribution to Indian Geography Part – III – General Climatology, Heritage Publication, New Delhi.
13. Trewartha, G.T. (1954): An Introduction to Climate, McGraw Hill Series in Geography. New York
14. Upadhyay, D.P. & Singh, R. (2003): Climatology and Hydrology (in Hindi), Vasundhara Prakashan, Gorakhpur.

Code: MGEC509N

Course: Theory -Core

Title of the Paper: Research Methodology

Credits 4+0

Unit	Topics	Sub-topics	Periods
1	Scientific Research in Geography	Concept, Meaning and Objectives of Research, Types of Research, Overview of Research Process	15
2	Methods and Sources of Data collection	Techniques of Data Collection: Questionnaire and Interview Schedule, Interview, Observation, Case Study; Preparation of Questionnaire, Sampling Design, Selection of Respondents. Sources of Data: (A) Secondary Data: Census, NSS, CSO, Aerial Photographs and Satellite Imageries, Web Portal (B) Primary Data: Observational Method, Questionnaires and Interviews; Sampling Methods.	15
3	Research Process	Defining Research Problem: Identification of Problems, Specification of Objectives, Review of Literature, and Conceptualization of Research Problem, Research Questions and Hypotheses. Research Plan.	15
4	Report writing	Tabulation and Compilation of Data, Content Analysis, Citation, References, Bibliography, Review of Literature, Formatting of Research Reports	15
Continuous Internal Assessment Assignment/ Presentation/Exercises/Field Work			

Course outcomes

- Can understand scientific research in Geography.
- Understand the Methods and Sources of Data collection
- Explain research process and know report writing.

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. arf, B. (Ed)(2006): Encyclopedia of Human Geography, SAGE Publications, London

Code: MGEC510N

Course: Theory-Core

Title of the Paper: Regional Development and Planning of India

Credits 4+0

Units	Topics	Sub Topics	Periods
1	Region and Regionalization	Concept of Region and Regional Geography, Types of Region, Methods of Regionalization, Macro, Meso and Micro Regions of India. Attempts of Regionalization with reference to Stamp, Spate, & R.L. Singh	15
2	Regional Analysis of Problematic Regions	Kashmir Himalaya, North Eastern Region, Tribal Regions: Central India, Middle Ganga Plain	15
3	Problems and Prospects of Development- Case Studies	Chhotanagpur Plateau, Malabar Coast, Punjab Plain, Malwa Plateau,	15
4	Development Programmes of Specific Areas	Drought Prone Areas, Flood Prone Areas, Desert Areas, Hill Areas	15
Continuous Internal Assessment			

Course outcomes

- It introduces the concept of region and regionalisation and regionalization of India
- Able to identify problems and prospects of development of different region of India
- Comprehend development programmes of specific areas.

Reference Books:

1. Bansal, S.C. (1999): Advanced Geography of India, Meenakshi Publication, Meerut.
2. Chauhan P.R. (2001): Bharat Ka Vrihat Bhoogol, VasundharaPrakashan, Gorakhpur.
3. Deshpande C.D (1992): India: A Regional Interpretation, Northerrn Book Centre, New Delhi.
4. Gautam, Alka (2001): Geography of India, ShardaPustakBhawan, Allahabad.
5. Govt. of India: Economic Survey, Ministry of Finance, New Delhi.
6. Hussain, Majid (2008): Advance Geography of India, Tata McGraw Hill, New Delhi.
7. Johnson, B.L.C. (1983): Development in South Asia. Penguin Books, Harmons worth.
8. Khullar, D.R. (2006) India: A Comprehensive Geography, Kalyani Pub., New Delhi.
9. Krishnan, M. S. (1968): Geology of India and Burma. 4th edition. HigginBothams Private. Ltd., Madras.
10. Nag, P. and Gupta S. S. (1992): Geography of India. Concept Publishing. Company, New Delhi.
11. Sharma, T. C. (2003): India: Economic and Commercial Geography. Vikas Publication., New Delhi.
12. Singh, J. (2003): India: A Comprehensive and Systematic Geography. GyanodayaPrakashan, Gorakhpur.
13. Singh, R. L. (ed.) (1971): India. A Regional Geography. National Geographical Society of India, Varanasi.
14. Spate, O.H.K. & Learmonth, A.T.A. (1954) : India & Pakistan, Methuen, London.
15. Tiwari, R. C. (2007): Geography of India, PrayagPustakBhawan, Allahabad
16. Wadia, D. N. (1959): Geology of India. MacMillan and Company, London and Madras.

Code: MGEP511N

Course: Practical

Title of the Paper: System Analysis, Geological Maps and Morphometric Analysis

Credits 0+4

Units	Topic	Sub topic	Periods
1	Measurement of Inequality	Z score, Lorenz Curve and Gini Coefficient, Location Quotient, Coefficient of Localization, Localization Curve	15
2	Network Analysis	Nearest Neighbour Analysis, Network Analysis and Degree of Connectivity, Shape Analysis, Gravity Models, Retail Gravitation.	15
3	Geological Maps	Beds, bedding Plane, Strike lines, Outcrop Drawing of Cross Sections – Inclined, Folded, Faulted Strata and Unconformable Series; Interpretation of Geological History – Nature of Relief and Rock Structure and their Correlation	15
4	Morphometric Analysis	Drainage: Density, Frequency, Dissection index Slope Analysis: Wentworth Method, Preparation of Hypsometric Curve, Altimetric Frequency Curve, Clinographic Curve using Topographical Sheet of any Hilly and Plateau region	15
Continuous Internal Assessment			

Course outcomes

- Introduces different statistical methods to measure inequality.
- Impart knowledge on quantitative measurement of spatial patterns and spatial techniques.

Reference Books:

1. Alonso, W. & Friedmann, E. (1970): Regional Development and Planning, Longman, London.
2. Bhat, L.S. (1973): Regional Planning in India, Statistical Publishing Society, Kolkata.
3. Chand, M. and Puri, V. K. (2003): Regional Planning in India, Allied Publishers Pvt. Ltd., New Delhi
4. Chandana, R. C. (2000): Regional Planning: A Comprehensive Text, Kalyani Publishers, Ludhiana
5. Dube, K. N. (1990): Planning and Development in India, Asia Publishing House, New Delhi
6. Dubey, K.K. & Singh. M.B. (1988): PradeshikNiyojan, Tara Publication, Varanasi.
7. Friedmann, J. and Alonso, W. (1967): Regional Development and Planning: A Reader, MIT Press, New York
8. Ginsburg, N.S. (1959): The Regional Concept and Planning, Regional Planning UNO, New York.
9. Glassen, John (1978): An Introduction to Regional Planning, Hutchinson, Educational, London.
10. Glasson, J. and Marshall, T. (2007): Regional Planning, Routledge, New York
11. Glikson, Arther (1985): Regional Planning and Development, London.
12. Govt. of India (1986): Regional Plan 2001: National Capital Region, NCRPB, Ministry of Urban Development, New Delhi
13. India Year Book (2014): Publication Division, New Delhi
14. Isard, W (1963) Methods of Regional Analysis: an Introduction to Regional Science, The MIT Press, Cambridge, Massachusetts.
15. Mishra, H. N. (2005): Regional Planning, Rawat Publication, Jaipur
16. Mishra, R. P. (2002): Regional Planning in India- Concept Publication, New Delhi

Code: MGEE512N

Course: Elective

Title of the Paper: Political Geography

Credits 4 +0

Units	Topics	Sub-topics	Periods
1	Introduction & Approaches	Nature & Scope, Evolution & Development of Political Geography; Contribution of German, British, American & Indian Scholars; Approaches to the Study of Political Geography in reference to Functional and Unified Field Theory	15
2	Nation and State	The Concept of Nation and State; Spatial Factors and Anatomy of State: Core Areas and Capitals; Frontiers and Boundaries. Evolution of Federalism, Origin and Success of Federalism in India	15
3	Strategic Views	Global Strategic Views with particular emphasis on the ideas of Mahan, Mackinder, Spykman and Deseveresky, Geopolitical Setting of India, Significance of Indian Ocean;	15
4	Spatial Organisation	Elements of Electoral Geography; Geopolitical Problems of India in Relation to its Neighbours; Contemporary Problems of India; Regional Co-operations – SAARC, ASEAN, European Union.	15

Course Outcomes

- To understand the scope and development of the subject matter with the understanding of the various approaches involved
- To develop the understanding on the concepts related to the anatomy of the state based on the current philosophy and established theories.
- To understand the spatial processes involved in the success of the federalism and electoral geography.
- To understand the Geopolitical Setting of India in relation to the neighbours and its significance in the world regional settings.

Reference Books:

1. Adhikari, S. (2005): Political Geography of India, SharadaPustakBhawan, Allahabad
2. Busted, M.A. (1980): Developments in Political Geography, London.
3. Carlson, L. (1971): Geography and World Politics, Prentice Hall, New Jersey.
4. Chauhan, P.R. (1996): RajnitikBhoogol, VasundharaPrakashan, Gorakhpur.
5. Cox, K. (2002): Political Geography: Territory, State and Society, Wiley-Blackwell
6. Dikshit, R.D. (1989): Political Geography: A Contemporary Perspective, Tata McGraw Hill, New Delhi.
7. Dikshit, S.K. (2007): RajnitikBhoogolAvamBhurajni, VishwavidyalayaPrakashan, Varanasi.
8. Dwivedi, R.L. (1980): Political Geography, Chaitanya Publishing House, Allahabad.
9. Glassner, M.L. & Blij, H.J.de (1968): Systematic Political Geography, John Wiley, New York.
10. John, R. S. (2002): An introduction to Political Geography, Taylor & Francis.
11. Johnston, R.J. (1982): Geography and the State, Mac Millan, London.
12. Kasperson, R.E. & Minghi, J.V. (1971): Structure of Political Geography, London.
13. Pounds, N. J.G. (1977): Political Geography, McGraw Hill, New York.
14. Sinha, Manorama (1995): Political Geography, Horizon Publication, Allahabad.
15. Sukhwai, B.L. (1985): Modern Political Geography of India, Sterling Publication, New Delhi.
16. Taylor, P. (1985): Political Geography, Longman, London, 1985.

Code: MGEE513N

Course: Elective

Title of the Paper: Urban Geography

Credits 4+0

Units	Topic	Sub-topics	Periods
1	Introduction	Nature, Scope & Development of Urban Geography, Urban Growth in Ancient, Medieval, and Modern Period, Megalopolis & Conurbation, Trend of Urbanisation in India.	15
2	Models in Urban Geography	Urban Growth Models: Concentric Zone, Sectoral, and Multiple nuclei Theory, Concept of Rank Size Rule and Primate City, law of Primacy.	15
3	Urban Morphology	Concept of Urban Morphology, Functional Classification of Urban Centres, Concept of Umland, agglomeration, SUA, Satellite Towns, Statuary Town, Continuum, Rural-Urban Fringe: Concept & Characteristics, Urban Sprawl.	15
4	Urban Policies & Planning	Problems of Cities Concept of Town Planning: Aims & Principles, Problems and Prospects of Town Planning in India Urban Policies & Smart Cities	15
Continuous Internal Assessment			

Course outcomes

- To know the scope and advancement of the Urban Geography as an established branch of the Geography as a subject
- To understand the spatial processes of urban growth and factors which affect the origin and development of urban settlements.
- To build the theoretical understanding based on certain models related to the processes of the urban morphology.
- To understand the theoretical and functional classification of the urban settlements and the related socio-economic problems and planning issues.

Reference Books:

1. Alam, S.M. (1965) Hyderabad-Secundrabad : A Study in Urban Geography, Allied Publishers, Mumbai.
2. Bansal, S.C. (2008) Urban Geography (in Hindi), MeenakshiPrakashan, Meerut.
3. Bose, A. (1980): India's Urbanisation, Tata McGraw Hill, New Delhi.
4. Carter, H. (1979): The Study of Urban Geography, Arnold Heinemann, London.
5. Gibbs, J. P. (Ed.),(1961): *Urban Research Methods*, Princeton.
6. Hall, T. (2006): Urban Geography, Routledge, London.
7. Karan, M.P. (1991) Urban Geography (in Hindi), KitabGhar Acharya Nagar, Kanpur.
8. Mandal, R.B. (2000) Urban Geography: A Textbook, Concept Publishing Company, New Delhi.
9. Mayer, H.M. & Kohn, C.F. (1967): Reading in Urban Geography, Central Book Depot, Allahabad.
10. Pacione, M. (2009): Urban Geography, Routledge, New York Press, New Delhi.
11. Ramchandran, R. (1997): Urbanization and Urban Systems in India, Oxford University.
12. Rao, B.P. and Sharma, N. (2000) Urban Geography (in Hindi), VasundharaPrakashan, Gorakhpur.
13. Siddharth, K. and Mukherjee, S. (2013): Cities, Urbanization and Urban System, KisalayaPrakashan,
14. Singh, O.P. (1979) Urban Geography (in Hindi), Tara Publication, Varanasi.
15. Singh, R.L. (1955) Banaras: A Study in Urban Geography, Nand Kishore & Sons, Varanasi.
16. Singh, Ujagir (1974) Urban Geography (in Hindi), Uttar Pradesh Hindi Granth Academy, Lucknow.

Code: MGEE514N

Course: Elective

Title of the Paper: Transport Geography

Credits 4+0

Units	Topic	Sub-topic	Periods
1	Introduction	Definition, Scope & Relevance to the study of Transport Geography, Historical Development of Transport System, Relative Importance of Different Modes of Transport. Concept of Spatial Interaction	15
2	Structure of Transport Network	Evolution of Transport network with special reference to Taffee, Morrill and Gould's Model. Network analysis- Concept of accessibility and connectivity	15
3	Modes of Transport	Measures of connectivity-Graph theoretic measures – Cyclomatic, Alpha, Beta, Gamma & Detour Index State of Modes and Means of Transport in India – Rail, Road, Waterways and Airways.	15
4	Policy and Planning	Transport policy in India , Transport planning , Role of Transport in Regional development.	15
Continuous Internal Assessment			

Course outcomes

- It introduces meaning and Scope & relevance of the study of Transport Geography.
- Comprehend concept of spatial interaction and its base.
- Examine mode of transport and policy planning with special reference to India.

Reference Books:

1. Houle. B.S. (1973): Transport and Development, Mc Millan, London.
2. Hurst, Elliot (1973): Transport Geography – Readings and Comments, McGraw Hill Book Co. New York.
3. Jain, J.K. (1997): Transport Economics, Chaitanya Pub. House, Allahabad.
4. Kansky, J. (1963): Structure of Transport Network, University of Chicago, Deptt. of Geography.
5. Raza, M. & Agrawal, Y. (1986): Transport Geography of India, Concept Pub., New Delhi.
6. Robinson, H. & Banford, C. (1978): Geography of Transport, Mc Donald & Evans, London.
7. Singh, J. (1969): Transport Geography of South Bihar, N.G.S.I., B.H.U.
8. Singh, K.N. (1990): Transport Network in Rural Development in Eastern U.P., I.R.E.D., Gorakhpur.
9. Singh, K.N. (2005): Parivahan Bhoogol, Gyanodaya Prakashan, Gorakhpur.
10. Taffee, E.J. & Gauthier, H.L. (1973): Geography of Transportation, Prentice Hall.

Course Code: MGEO515N
Course: Open Elective
Course Title: General Geography of India
Credits:-04

Units		Topic	Periods
1	Physical Setting	Physiography; Drainage system; Indian monsoons and rainfall patterns; Tropical cyclones, Koppen's Climatic Classification; Types and distributions of natural vegetation and Soil.	15
2	Cultural Setting	Indian Society; Racial linguistic and ethnic diversities; Major tribes; Population: Growth, Distribution and Pattern; Types, patterns and morphology of rural and Urban settlements; Morphology of Indian cities, Conurbations;	15
3	Indian Economy	Major Agricultural Crops; Green and white revolution; Agricultural Region and Agro-climatic zones; Locational factors of major industries: iron and steel, fertiliser, chemical and pharmaceutical, automobile, and Ago-based industries; Transport, Communication and Trade.	15
4	Contemporary Issues	Environmental hazards; environmental pollution and Environmental degradation; Deforestation, desertification and soil erosion; Environmental awareness; Globalisation and Indian economy and SDG.	15
			Continuous Internal Assessment

Course Outcome:

- Various dimensions of the geographical features of India and their spatial distribution
- Understanding of regional divisions of India.
- Detailed exposure to the human and physical features of India.
- Understanding socio-cultural base of India.

Suggested Readings:

1. Chauhan, P.R. and Prasad, M. (2003): Bharat Ka Vrihad Bhoogol, Vasundhara Prakashan, Gorakhpur.
2. Farmer, B.H. (1983) : An Introduction to South Asia, Methuen, London.
3. Gautam, A. (2006): Advanced Geography of India, Sharda Pustak Bhawan, Allahabad.
4. Johnson, B.L.C. (1983) : Development in South Asia, Penguin Books, New York.
5. Khullar, D.R. (2007): India: A Comprehensive Geography, Kalyani Publishers, New Delhi.
6. Nag, P. and Gupta, S. S. (1992): Geography of India, Concept Publishing Company, New Delhi.
7. Rao, B.P. (2016) : Bharat ki Bhaugolik Sameeksha, Vasundhara Prakashan, Gorakhpur.
8. Sharma, T.C. and Coutinho, O. (2003): Economic and Commercial Geography of India, Vikas Publishing House Private Ltd. New Delhi.
9. Singh, J. (2003): India: A Comprehensive Systematic Geography. Gyanodaya Prakashan, Gorakhpur.
10. Singh, J. (2001): Bharat: Bhougolik Aadhar Avam Ayam, Gyanodaya Prakashan, Gorakhpur.
11. Singh, R.L. (ed.) (1971): India: A Regional Geography. National Geographical Society of India, Varanasi.
12. Spate, O.H. K., Learmonth A. T. A. (2004): India, and Pakistan: A General and Regional Geography, Methuen & Co. Ltd., London

Semester - III

Code: MGEC516N

Course: Theory -Core

Title of the Paper: Oceanography & Hydrology

Credits 4+0

Unit	Topics	Sub-topics	Periods
1	Basics of Oceanography	Definition & Scope of Oceanography; Major relief features of ocean basins; Distribution of temperature, Salinity, Density, Oceans Currents and tides.	15
2	Physical Property and Dynamics of Ocean	Marine Deposits: types and distribution; Coral Reefs and Atolls: Theories and Formation; Sea level change	15
3	Basics of Hydrology	Meaning & scope of Hydrology, Man & hydrological cycle; Measurements of Precipitation; Estimation of evaporation and evapotranspiration; Soil Moisture.	15
4	Water resource and its Management	Groundwater: occurrence, storage, recharge and discharge; Hydrograph; Water management Techniques; Integrated basin management with reference to micro-watershed planning.	15
Continuous Internal Assessment			

Course outcomes

- The paper introduces physical environment and different oceanic circulations of the marine water.
- It enhances the knowledge regarding the deposits and resources available in marine water
- comprehend knowledge on geopolitics with special reference to Indian ocean

Reference Books:

1. Garrison, T. (1993): Oceanography – An Invitation to Marine Science, Wadsworth
2. Gerald, S. (1985): General Oceanography: An Introduction, New York.
3. Gross, G. M. (1990): Oceanography, Macmillan Publication, New York
4. Joseph, W. S. and Parish, H. I. (1974): Introductory Oceanography, McGraw Hill, Tokyo
5. King, C.A. (1986); Oceanography, C.E. Arnold, London.
6. Lal, D.S. (2003): Oceanography, ShardaPustakBhawan, Allahabad.
7. Murrey, A.F. (1980): Applied Oceanography, Longman, London and New Jersey
8. Pinet, P. R. (2009): Invitation to Oceanography, Jones and Bartlett Publishers, Boston Publication Co., California
9. Sharma, R.C. & Vatal, Mira (1995): Oceanography for Geographers, Chaitanya Pub. House, Allahabad.
10. Singh, Savindra (2007): Oceanography, PrayagPustakBhawan, Allahabad.
11. Stowe, K. S. (1979): Ocean Science, John Wiley and Sons, New York
12. Thurman, H. V. and Trujillo, A. P. (1997): Introductory Oceanography, Prentice Hall,
13. Thurman, H.B. (1983): Introductory Oceanography, Longman, London.
14. Upadhyay, D.P. & Singh, R. (2001): Oceanography (Hindi), VasundharaPrakashan, Gorakhpur.

Code: MGEC517N

Course: Theory Core

Title of the Paper: Cultural Geography

Credits 4+0

Units	Topic	Sub topic	Periods
1	Introduction	Concept of Culture, Nature Scope and Significance of Cultural Geography, Approaches and Development, Cultural Landscape and Cultural Ecology, Cultural Diffusion	15
2	Origin of Man & Races	Origin & Dispersal of Man, Types & Dispersal of Human Races; Racial Composition of India; Linguistic and Religious Structure of the World. Cultural Hearths; Cultural Realms	15
3	Cultural Development	Domestication of Plants and Animals; Renewal and Dispersal Activities of Crops; Agricultural Practices and Innovations, Industrial and Technological Revolution and its impact on Culture,	15
4	Contemporary Issues	Globalization and Cultural Development, Culture and Indian Knowledge System, Religion, Gender Conflict, Multiculturalism.	15

Course Outcomes

- Introduce the students to show culture play a key role in relationship between man and environment.
- Discuss about cultural landscape, origin of race, domestication of plants and animals, innovation and agricultural practices
- Able to explain how do culture impact on industrial and technological revolution

Reference Books:

1. Anderson, K., Domosh, M., Pile, S. and Thrift, N. (2003): Handbook of Cultural Geography, SAGE Publications, London
2. Blunt, A., Gruffudd, P., May, J., Ogborn, M. and Pinder, D. (2003): Cultural Geography in Practice, Edward Arnolds Limited, London
3. Carter, G.F. (1998) Man and the Land: A Cultural Geography, Rienhart, New York.
4. Coulborn, R. (1959): The Origin of Civilized Societies, Princeton University Press, Princeton, New Jersey.
5. Dicken, S.N. & Pitts, F.R. (1970): Introduction of Cultural Geography: A Study of Man and his Environment, Edwin & Co. Waltham, Massachusetts.
6. Dikshit, S.K. & Tripathi, R.D. (2001): Sanskrit Bhoogol, Vasundhara Prakashan, Gorakhpur.
7. Dohus, F.E. & Sommers, L.M. (ed) (1967): Cultural Geography – Selected Readings, Dunn – Donnally Publishing Corporation, New York.
8. Domosh, M., Neumann, R. P., Price, P. L. and Jordon-Bychkov, T. G. (2009): The Human Mosaic- A Cultural Approach to Human Geography, WH Freeman, New York
9. Duncan, J. S., Johnson, N. C., and Schein, R. H. (2004): A Companion to Cultural Geography, Blackwell Publishing Ltd, Oxford
10. Frazier, E.F. (1957): Race and Cultural Contacts in the Modern World; A.A. Knopf, New York.
11. Iaian, R. and Richards, P. (2003): Studying Cultural Landscapes, Oxford University Press, London
12. Jordon, G. (1995): Cultural Politics, Blackwell, Oxford
13. Mike, C. (1998): Cultural Geography, Routledge, London

Code: MGEC518N

Course: Theory Core

Title of the Paper: Geospatial Techniques

Credits 4+0

Units	Topic	Sub topic	Periods
1	Aerial Photograph	Aerial photography- photographic instruments; photographic configuration; types of photography. Types of aerial photographs; B&W panchromatic photographs, Coloured photographs, False coloured infrared photographs, Ultraviolet photographs, Multiband photographs. photographs	15
2	Digital Images	Basic features of digital images, Raster data system, Vector data structure for thematic maps, Choice of vector or raster data; Advantages and disadvantages of vector and Raster methods.	
3	Digital Image Processing	Digital Image Processing, Classification scheme, supervised classification, training site selection, Unsupervised classification	15
4	Global positioning system (GPS)-	basic concepts; Characteristic of GPS Satellite; GPS signals, GPS receivers; Observation principles, Types of GPS positioning, Measures of accuracy, Determination of orthographic heights using GPS; Heights and geoid, GPS procedures, applications and limitations	15
Continuous Internal Assessment			30

Reference Books:

1. Brown, L.A. (1949) : Maps and Map Makers, Batsford, London.
2. Bygott, J. (1967) : An Introduction to Map Work and Practical Geography, University Tutorial, London
3. Chauhan P,R. (2014) PrayogatmakBhoogol, VasundharaPublicaiions, Gorakhpur
4. Debenham, F. (1936) : Map Making, M.S. Mill & Co. New York
5. Dickinson, G.C. (1969) : Maps and Air Photographs, Edward Arnold, London
6. Lawrence, G.R.P. (1971) : Cartographic Method, Methuen, London
7. Monkhouse, F.J. and Wilkinson, H.R. (1966) : Maps and Diagrams, Methuen, London.
8. Raise, E. (1946) : General Cartography, McGraw Hill, New York.
9. Robision A., et.al (1978) : Elements of Cartography, John Wiley and Sons, New York.
10. Singh, R.L., Singh, R.P.B. (1991) : Elements of Practical Geography, Kalyani Pub., New Delhi.
11. Yadav, H.L. (2001) : PrayogatmakBhoogol, Radha Pub., New Delhi.

Code: MGEP519N

Course: Practical

Title of the Paper: Tour & Tour Based Report

Credits 0+4

Units	Topic	Sub topic	Periods
1	Field Study Concept	Detailed field observation	15
2	Methodology and Sampling	Interpretation with sample survey.	15
3	Report Writing	Preparation of a report using sketches, diagrams & photographs of visited area. *The field study must be conducted in the areas other than the Gangetic Plain. The TA/DA and other allowances for the tour in-charge of the field study will be withdrawn from the Lab Fund to respective Institution (All the responsibilities should be taken by Head of the Institution).	15
4	Referencing and Bibliography	Methods (Chicago, MLA, APA and Haward System)	15
Continuous Internal Assessment			

Reference Books:

1. Alonso, W. & Friedmann, E. (1970): Regional Development and Planning, Longman, London.
2. Bhat, L.S. (1973): Regional Planning in India, Statistical Publishing Society, Kolkata.
3. Chand, M. and Puri, V. K. (2003): Regional Planning in India, Allied Publishers Pvt. Ltd., New Delhi
4. Chandana, R. C. (2000): Regional Planning: A Comprehensive Text, Kalyani Publishers, Ludhiana
5. Dube, K. N. (1990): Planning and Development in India, Asia Publishing House, New Delhi
6. Dubey, K.K. & Singh. M.B. (1988): PradeshikNiyojan, Tara Publication, Varanasi.
7. Friedmann, J. and Alonso, W. (1967): Regional Development and Planning: A Reader, MIT Press, New York
8. Ginsburg, N.S. (1959): The Regional Concept and Planning, Regional Planning UNO, New York.
9. Glassen, John (1978): An Introduction to Regional Planning, Hutchinson, Educational, London.
10. Glasson, J. and Marshall, T. (2007): Regional Planning, Routledge, New York
11. Glikson, Arther (1985): Regional Planning and Development, London.
12. Govt. of India (1986): Regional Plan 2001: National Capital Region, NCRPB, Ministry of Urban Development, New Delhi
13. India Year Book (2014): Publication Division, New Delhi
14. Isard, W (1963) Methods of Regional Analysis: an Introduction to Regional Science, The MIT Press, Cambridge, Massachusetts.
15. Mishra, H. N. (2005): Regional Planning, Rawat Publication, Jaipur
16. Mishra, R. P. (2002): Regional Planning in India- Concept Publication, New Delhi

Code: MGEP520N

Course: Project

Title of the Paper: Research Project/ Dissertation

Credits 0+4

Instruction for Dissertation Writing
<ul style="list-style-type: none">• The Dissertation can be done on any topic related to geography, it will be like a mini Thesis. It should be compiled in various chapters. The introduction chapter presents the core research question and aims. The literature review chapter assesses what the current research says about this question. The methodology, results and discussion chapters go about undertaking new research about this question.• Typewriting of the dissertation work should always be on an A4 size sheet. The font must be vivid and clear. Use a similar font in the entire dissertation. <p>(As per UGC Guideline)</p>

Code: MGEE521N

Course: Elective

Title: Geography of Heritage

Credits 4+0

Units	Topic	Sub-Topic	Periods
1	Frame and Concepts	Meaning and Scope, Concepts, Approaches, and History of Heritage Studies and Geography; Heritagescapes and Sacredscapes; Pilgrimage and holy-heritage cities; Historic Urban Landscape.	15
2	Typology and Cultural contexts	UNESCO's classifications; Tangible and Intangible heritages; Spatial tradition, management, planning and conservation.	15
3	India's heritage and Heritage related Institutions	India's Heritage: case studies from India; Distribution and characteristics of heritage sites, religious and pilgrimage contexts of sites. Role of UNESCO, World Bank Programme, and other Institutions; Indian context- functions and role of institutions.	15
4	Heritage Programme and Sustainable Development	Heritage and Cultural tourism; Heritage Contestation, Heritage at Risk and World Heritage Sites: Politics, Management, and Sustainable Development Goals (SDGs); Heritage Laws; Holy-heritage Cities of India with case studies; Inclusive Heritage Development.	15
Continuous Internal Assessment			

Course outcomes:

- To be well aware and awaken to the understanding of human culture and symbolic expression in making better future for peace and global understanding in a sustainable way that ultimately promote National and Cultural loyalty.
- Understanding our heritage (in the purview of 'succession-sustenance-sustainability') that will motivate for its conservation and preservation and making it a part of development programmes, self-reliance and resilient human habitat systems.

Reference Book:

1. Bandarin, Francesco and van Oers, Ron 2012.*The Historic Urban Landscape: Managing Heritage in an Urban Century*. Wiley-Blackwell, Chichester U.K.
2. Bandarin, Francesco and van Oers, Ron (eds.) 2015. *Reconnecting the City: The Historic Urban Landscape Approach and the Future of Urban Heritage*.Wiley-Blackwell, Chichester U.K.
3. Edensor, Timothy; Kothari, Uma and Kalanides, Ares (eds.) 2020.*Routledge Handbook of Place*.Routledge, Taylor & Francis, London & New York:
4. Graham, Brian and Howard, Peter (eds.) 2008. *The Ashgate Research Compendium to Heritage and Identity*.Ashgate, Aldershot U.K.
5. Graham, Brian; Ashworth, Gregory J. and Tunbridge, John E. 2000.*A Geography of Heritage: Power Culture & Economy*. Hodder Arnold Publication, London.
6. Olsen, Daniel and Trono, Anna (eds.) 2018.*Religious Pilgrimage Routes and Trails: Sustainable Development and Management*. CABI Publishers, Wallingford, Oxon U.K.
7. Roders, Ana Pereira and Bandarin, Francesco (eds.) 2019.*Reshaping Urban Conservation: The Historic Urban Landscape Approach in Action*.Springer Nature, Singapore.
8. Shaw, Brian J. and Jones, Roy (eds.) 1997.*Contested Urban Heritage.Voices from the Periphery*.Ashgate, Aldershot UK
9. Silva, Kapila D. and Sinha, Amita (eds.) 2016. *Cultural Landscapes of South Asia: Studies in Heritage Conservation and Management*. Routledge, London and New York:
10. Silva, Kapila D. (ed.) 2020.*The Routledge Handbook on Historic Urban Landscapes of the Asia-Pacific*.Routledge, London and New York:
11. Silverman, Helaine and Ruggles, D. Fairchild (eds.) 2007.*Cultural Heritage and Human Rights*. Springer Science, New York.
12. Singh, Rana P.B. (ed.) 2011. *Heritagescapes and Cultural Landscapes*. Planet Earth & Cultural Understanding Series, Pub. 6. [10 essays]. Shubhi Publications, New Delhi.

Code: MGEE522N

Course: Elective

Title of the Paper: Agricultural Geography

Credits- 4+0

Units	Topics	Sub Topics	Periods
1	Introduction	Definition, Scope and Approaches of Agricultural Geography, Agriculture in Innovations & Diffusion	15
2	Land Use Analysis	Land Capability Classification with Special Reference to India, Land Use Classification with Special Reference to India. Carrying Capacity of Land, Kostrowicki's Classification of World Agriculture.	15
3	Measurement of Agricultural Efficiency	Methods of Agricultural Productivity; Measurement – Kendall's Ranking Coefficient Method, Weighted Ranking Coefficient Method; Regional Imbalances in the levels of Agricultural Productivity in India	15
4	Regionalisation of Agricultural Pattern and Development & Policies	Agricultural regions: Cropping Intensity and Diversification; Concept of Agricultural Development, Sustainable Agriculture, Agricultural revolutions & Recent Policies	15
Continuous Internal Assessment			

Course outcomes

- To analyses and understand complex classification of agriculture, land capability & land uses
- To understand the methods of agricultural productivity method etc.
- To introduce a systemic framework for issues, conservation and management in agriculturally backward region and their livelihood.
- To support and assimilate the information relating to the levels of agricultural development & policies, to check the disparities in levels of agricultural development.

Reference Books:

1. Giri, H.H. (1975): Land Utilization in Gonda District, Shivalaya Prakashan, Gorakhpur.
2. Grigg, D. (1995): An Introduction to Agricultural Geography, Routledge, London
3. Hussain, Majid (1998): Agricultural Geography, Rawat Publications, Jaipur.
4. Kumar, Pramila & Sharma, S.K. (1990) : Agricultural Geography (Hindi), M.P. Hindi Granth Academy, Bhopal.
5. Misra, R.P. (1968): Diffusion of Agricultural Innovation, Concept Publication, New Delhi.
6. Mohammad Ali (1977) Food and Nutrition in India, K.B. Publications,
7. Mohammad Ali (1978) Studies in Agricultural Geography, Rajesh Publishers, New Delhi
8. Mohammad, Noor (1980): Perspectives in Agricultural Geography (Vol. I-IV), Concept Pub. Co., New Delhi.
9. Negi, B.S. (1980): Agricultural Geography, Kdarnath Ramnath, Meerut.
10. Pandey, J.N. & Kamlesh, S.R. (2003) : Agricultural Geography (in Hindi), Vasundhara Prakashan, Gorakhpur.
11. Singh, B.B. (1979): Agricultural Geography (Hindi), Gyanodaya Prakashan, Gorakhpur.
12. Singh, Jasbir & Dillon, S.S. (1984): Agricultural Geography, Tata McGraw Hill Pub., New Delhi.
13. Singh, S.N. (1994): Agricultural Development in India, Kaushal Publications, Shillong.
14. Symons, L. (1970): Agricultural Geography, G. Bell and Sons Ltd., London
15. Tiwari, R.C. & Singh, B.N. (1994) : Agricultural Geography (Hindi), Prayag Pushtak Bhawan, Allahabad.
16. Vaidya, B. C. (1997): Agricultural Land use in India, Manak Publications, New Delhi

Code: MGEE523N

Course: Elective

Title of the Paper: Environmental Hazards and Disaster Risk Reduction

Credits 4+0

Units	Topic	Sub topic	Credit Hours
1	Introduction	Concepts of Environmental Hazards, Disaster & Risk; Types of Hazards; Concept Disaster Management.	15
2	Disaster Management techniques	Disaster Risk Reduction, Disaster Management Cycle; Risk assessment process; Hazard identification and mapping; Vulnerability Analysis.	15
3	Understanding Environmental Hazards	Characteristics, distribution, impacts and risk reduction measures of: Floods, Earthquakes, Tsunami, & Drought, Major hazards profile of India: Flood, earthquake & cyclones;	15
4	International and National Initiatives	International Decade of Natural Disaster Reduction (IDNDR) & International Strategy for Disaster Reduction (ISDR); National Disaster Management Authority (NDMA), India; Disaster management system in India.	15
Continuous Internal Assessment			

Course Outcomes

- Able to understand the fundamental and basics of Environmental hazards.
- Examine the theories and process of disaster risk reduction.
- Comprehend the national and international initiatives for disaster risk reduction programme.

Reference Books:

1. Alexander, D. (1993): Natural Disasters, Springer, Berlin
2. Bolt, B.A. et.al. (ed.) (1950): Geological Hazards, Springer, Verlay, New York.
3. Burton, I. et.al. (1978) Environment as Hazards, O.P.O., New York.
4. Goudie, A. (1990): Geomorphological Techniques, Unwin Hyman, London
5. Hart, M. G. (1986): Geomorphology: Pure and Applied, George Allen and Unwin, London
6. Kusky, T. (2012): Encyclopedia of the Hazardous Earth, Viva Books, New Delhi
7. Petak, W.J. and Atkinson, A.D. (1982): Natural Hazards Risk Assessment and Public Policy, Sprinager, Verlay, New York.
8. Roy, P.S. et.al. (2000): Natural Disaster and their Mitigation, ITC Publication.
9. Valdiya, K. S. (1987): Environmental Geology, Tata McGraw Hill, New Delhi
10. White, G.F. (ed) (1974): Natural Hazards, Local, National and Global, Oxford University Press, London.

Semester IV

Code: MGEC524N

Course: Theory Core

Title of the Paper: Environment and Ecology

Credits 4+0

Units	Topic	Sub topic	Periods
1	Concept	Concept and elements of Environment, Approaches to study the Environment; Environment and Society Environment and Development, Concept of Ecosystem.	15
2	Forms and Functions in Ecosystem	Energy availability & flow in trophic level, Ecological Pyramids, Bio Geo-Chemical Cycles: Carbon, Nitrogen. Oxygen.	15
3	Major Ecosystems & Human interactions	Forest, grassland and desert Ecosystem; Human Ecology, Environmental Ethics and Deep Ecology, Environmental Pollution.	15
4	Environmental Management National and International Level	National Programmes and Policies: Legal Framework, Environmental Polices; International Treaties, Programme and Policies.	15

Course outcomes

- The paper introduces meaning, elements and different approaches to study environment
- It familiarizes with the forms and functions of ecosystems.
- It enhances the knowledge on various legislation and act on environmental management with special reference to India

Reference Books:

1. Chandna, R. C. (2002): Environmental Geography, Kalyani, Ludhiana
2. Cunningham, W. P. and Cunningham, M. A. (2004): Principles of Environmental Science: Inquiry and Applications, Tata McGraw Hill, New Delhi
3. Goudie, A. (2001): The Nature of the Environment, Blackwell, Oxford
4. Mathur, H. S. (2003): Essentials of Biogeography. Pointer Publication, Jaipur.
5. Miller, G. T. (2004): Environmental Science: Working with the Earth, Thomson Brooks Cole, Singapore
6. MOEF (2006): National Environmental Policy-2006, Ministry of Environment and Forests, Government of India, New Delhi
7. Nag, P., Kumra, V.K. and Singh, J. (1990): Geography and Environmental Issues at Local, Regional and National Levels. (in 3 vols.), Concept Publishing Company, New Delhi.
8. Odum, E.P. (1975): Ecology. Rowman and Littlefield, Lanham USA.
9. Rajagopalan, R. (2005): Environmental Studies: From Crisis to Cure, Oxford University Press, New Delhi.
10. Reddy, M. A. (2004): Geoinformatics for Environmental Management. B. S. Publishers., Hyderabad.

Code: MGEC525N

Course: Theory Core

Title of the Paper: Statistical Methods in Geography

Credits 4+0

1.	Use of data in Geography	Significance of Statistical Methods in Geography: Collection, Organization, presentation; Sources of Data: Primary and Secondary	15
2.	Descriptive and Inferential Statistics	Central Tendencies: Mean, median (other partition values as quartile, deciles and percentile) and mode. Dispersion: Standard Deviation, Variance, Indices of inequality and disparity, Hypothesis testing: Z-test, F-Distributions, T-Test, ANOVA one-way classification	15
3.	Correlation and Regression	Rank Correlation : Simple and with repeat ranks (Spearman's method) • Product Moment Correlation(Karl Pearson's method) • Simple Regression	15
4.	Theoretical Distribution	Concept of Probability: Brief theoretical concept of probability, Probability Theory: Normal and Binomial; find area under normal curve,	15

Course outcomes

- Introduces different statistical methods.
- Impart knowledge on quantitative measurement of spatial patterns and spatial techniques.

Reference Books:

1. Mahmood, Aslam (1999). Statistical Methods in Geographical Studies, Rajesh Publication. New Delhi.
2. Bailey, T. and Gatrell, A. C., (1995). Interactive Spatial Data Analysis. Longman, Harlow.
3. Chauhan, P.R., (2014). Prayogatmak Bhoogol, Vasundhara Publications, Gorakhpur
4. Sharma, J.P., (2018). Outlines of Practical Geography (Prayogatmak Bhoogol ki Rooprekha), Excellence Publication.
5. Duncan, O.D. et.al., (1961). Statistical Geography, Free Press of Glen Co., New York.
6. Gregory, S. (1968). Statistical Methods and Geographers, Longman, London.
7. Griffith, D. A. and Amehein (1997). Statistical Analysis for Geographers. Prentice Hall, Englewood Cliffs, New Jersey.
8. King, L.J. (1969). Statistical Analysis in Geography, Longman, London.
9. Bart James E. and Gerld M. Barber, (1996). *Elementary Statistics for Geographers*, The Guieford Press, London.
10. Rohatgi, V. K. and Saleh, A. K. (2015). *An Introduction to Probability and Statistics*, John Wiley & Sons, New Jersey.
11. Saroj K. Pal (1999). Statistics for Geoscientists, Concept Publishing Company Pvt.Ltd.

Code: MGEC526N

Course: Theory Core

Title of the Paper: Population Geography

Credits- 4+0

Units	Topic	Sub-topics	Periods
1	Introduction	Nature & Scope of Population Geography, Approaches of Population Geography, Sources of Population Data	15
2	Population Theories	Pre Malthusian Views, Malthusian Theory, Neo Malthusianism, Demographic Transition Theory, Optimum Population Theory, Social Theories of Population – Marx, Biological Theories of Population – Herbert Spencer	15
3	Composition of Population	Distribution & Density of Population, World Patterns of Population Growth and Distribution, Population Explosion,	15
4	Contemporary Problems & Policies	Types of Migration, Causes and Consequences, Migration Theories: Lee and Ravenstein, India's Population Policy, Population Planning with special reference to India.	15
Continuous Internal Assessment			

Course outcomes

- Introduces meaning, scope and approaches to study population geography.
- It appraises different population theories.
- Student may comprehend population scenarios, its composition and contemporary problems and policies.

Reference Books:

1. Agarwal, S. M. (1974): India's Population Problems, McGraw Hill Publishing Co. Ltd., New Delhi.
2. Beaujeu, Garnier (1978): Geography of Population, Longman, London.
3. Berelson, B. (1974): Population Policy in Developed Countries, MacMillan, London
4. Bhende, A. A. and Kanitkar, T. (2011): Principles of Population Studies, Himalaya
5. Chandana, R. C. & Sidhu, M.S (2013): Population Geography, Kalyani Publications, Delhi
6. Desoza, A. A. (1983): Indian Population Problem in Perspective and Social Action, Concept Publications, New Delhi
7. Hazel, B. R. (1994): Population Geography, Singapore Publishers Pvt. Ltd., Singapore
8. Hiralal (2000): JansankhyaBhoogol, Radha Publications, New Delhi.
9. Panda, B.P. (1991): Population Geography (in Hindi), Madhya Pradesh Hindi Granth Academy, Bhopal.
10. Sundaram, K.V. (1985): Population Geography, Heritage Publishers, New Delhi.
11. Trewartha, G.T. (1969): Geography of Population: World Patterns, John Wiley & Sons, New York.
12. Tripathi, R.D. (2008): JansankhyaBhoogolAvamJanakiki, VasundharaPrakashan, Gorakhpur.

Code: MGEP527N

Course: Practical

Title of the Paper: Instrumental Survey & Survey based Project

Credits 0+4

Units	Topic	Sub topic	Periods
1	Surveying	Levelling and Plotting by Dumpy Level	15
2	Measuring	Measurement of Horizontal and Vertical Angle by Theodolite	15
3	Mapping	Area Map by Telescopic Alidade	15
4	Report	Camp and Report writing	15
Continuous Internal Assessment			
Assignment/ Presentation/Exercises/Field Work			

Course outcomes

- The paper introduces structuring the questionnaire based on pilot study and primary research appraisal.
- It enhances the knowledge of tabulation and calculation based on field data

Reference Books:

1. Chauhan P.R. (2014): Prayogatmak Bhoogol, Vasundhara Publications, Gorakhpur
2. Davis, R.E. and Foote, F.S.: Surveying - Theory and Practices, Tokyo.
3. Kanetkar, T.P. & Kulkarni, S.V.: Surveying and Leveling, Pune.
4. Maling, D.H. (1973): Co-ordinate Systems and Map Projections. George Philip and Sons Ltd.
5. Misra, R.P. and Ramesh, A. (1999): Fundamentals of Cartography. Concept Publishing Company, New Delhi.
6. Monkhouse, F.J. and Wilkinson, H. R (1962): Maps and Diagrams, Methuen and Company Ltd. and Company Ltd., London.
7. Raisz, E. (1962): Principles of Cartography. McGraw Hill Books Company, Inc., New York.
8. Robinson (1991): Aerial Photography and Cartography, Mac Millan, London.
9. Robinson, A. H. H., Sale R., Morrison J. and Muehrcke, P. C (1984): Elements of Cartography, 6th edition John Wiley and Sons, New York.
10. Sahani, P.B. (1993): Advance Surveying, New Delhi.
11. Singh, J. et.al. (1990): Bhaumikiya Manchitro Ki Ruprekha, Vasundhara Prakashan, Gorakhpur.
12. Singh, L.R. (2001): Practical Geography, Sharda Pustak Bhawan, Allahabad.
13. Singh, R. L. and Singh, Rana P.B. (1993): Elements of Practical Geography. Kalyani Publishers, Ludhiana and New Delhi. (English and Hindi editions).
14. Tiwari, R.C. and Tripathi, Sudhakar (2001): Abhinav Prayogatmak Bhoogol, Prayag Pustak Bhawan, Allahabad.

Code: MGEP528N

Course: Project

Title of the Paper: Research Project/ Dissertation

Credits 0+4

Instruction for Dissertation Writing
<ul style="list-style-type: none">• The Dissertation can be done on any topic related to geography, it will be like a mini Thesis. It should be compiled in various chapters. The introduction chapter presents the core research question and aims. The literature review chapter assesses what the current research says about this question. The methodology, results and discussion chapters go about undertaking new research about this question.• Typewriting of the dissertation work should always be on an A4 size sheet. The font must be vivid and clear. Use a similar font in the entire dissertation. <p>(As per UGC Guideline)</p>

Code: MGEE529N

Course: Elective

Title of the Paper: Resource Appraisal & Management

Credits 4+0

Units	Topic	Subtopic	Periods
1	Introduction	Concept of Resources, Classification of Resources , Attributes of resources, Natural resources-Definition, Concepts and Approaches of Resource management.	15
2	Utilization of Natural Resources	Distribution, Utilization and problems of natural resources with special reference to India. Mineral Resources: Iron Ore, Energy Resource: Coal, Petroleum, Wind, Solar and Nuclear	15
3	Problems of Resource Utilization	Population explosion and pressure on resources. Population Resource Regions of the World, Development and Environmental Issues, Natural hazards and Risk management with emphasis on Earthquake , Flood & Drought	15
4	Conservation And Management	Meaning, Principles and Approaches to conservation, Resource appraisal and management methods, Emerging issues. Sustainable Resource development Integrated Resource development –Ecological, Economic and Social aspects	15
Continuous Internal Assessment			

Course outcomes

- It introduces basic concept of resources, classifications and approaches to study resource management
- Appraise problems of resource utilization, conservation and management.
- Able to analyses policy planning and integrated resource development.

Reference Books:

1. Behra, Deepak Kumar (2000): Resource Management Through Indigenous Knowledge, New Delhi.
2. Berry, B. J.L. (1976): Geography of Economic Systems, Prentice Hall, Englewood Cliff
3. Boyce, R. D. (1974): Bases of Economic Geography, Holt, Rinehart and Winston, New York
4. Hartshorne, T. A. and Alexander, J. W. (2010): Economic Geography, PHI, New Delhi
5. Holechek, J.L. et.al. (2000): Natural Resources: Ecology, Economics and Policy, Prentice Hall, New Jersey.
6. Kellog, C.F. (1986): Food, Soil and People, The Manhattan Publishing Co. New York.
7. Rao, B.P. (2006): Resources and Environment, Vasundhara, Prakashan, Gorakhpur.
8. Siddhartha, K. (2000): Economic Geography: Theories, Process and Patterns,
9. Simmans, I.G. (1981): The Ecology of Natural Resources, Edward Arnold, London.
10. Singh, Jagdish (1998): SansadhanBhoogol, GyanodayaPrakashan, Gorakhpur.
11. Smith, D. M. (1971): Industrial Location: An Economic Geographical Analysis, John Wiley and Sons, New York.
12. Singh, K.N and Siddiqui, A (2012): Economic Geography, PrayagPustakBhawan, Allahabad
13. Smith, G.H. (ed.) (2000): Conservation of Natural Resources, John Wiley, New York.
14. Smith, J.R. (1987): Industrial and Commercial Geography, London.
15. United Nations (2007): Human Development Report, Oxford, UNDP.
16. Zimmermann, E.W. (1966): Introduction to World Resources, Harper & Row, New York.

Code: MGEE530N

Course: Elective

Title of the Paper: Geography of Tourism

Credits 4+0

Units	Topic	Sub-topic	Periods
1	Introduction	Tourism; Concept, Nature, Scope & Approaches. Elements of Tourism; Evolution of Tourism; Types of Tourism; Cultural, Environmental, Socio-cultural & Economic Impact of Tourism.	15
2	Infrastructure	Role of Infrastructure in Promotion of Tourism, Transport & Communication and Markets, Information Technology; Travel Agents & Tour Operators.	15
3	Tourist Circuits	Concept of Circuit and Nodes, Major Tourist Circuits of the World; Major Tourist Circuits India & their Salient Features Evolution & Growth of Tourism in India; Trend of Tourism in India.	15
4	Tourism Organizations	Tourist Organizations: Domestic and International; Problems & Prospects of Tourism in India; Planning & Management of Tourism.	15
Continuous Internal Assessment			

Course outcomes

- Introducing relationship between geographical elements and tourism based on natural and cultural factors.
- Discuss about evolution of tourism studies in Geography and Role of infrastructure, information technology, transportation and communication in tourism promotion.

Reference Books:

1. Bhatia, A. K. (1991): International Tourism - Fundamentals and Practices, Sterling Publisher, New Delhi
2. Bhatia, A. K. (1996): Tourism Development: Principles and Practices, Sterling Publisher Ltd., New Delhi
3. C.Huster and H.Green: Tourism and the Environment: A Sustainable Relationship, Routledge, London, 1995.
4. C.M.Hall and S.J.Page: The Geography of Tourism and Recreation, Environment, Place and Space, Routledge, London, 1999.
5. D.Milton: Geography of World Tourism, Prentice Hall, New York, 1993.
6. D.S.Bhardwaj and M.Chaudhary (1997): Contemporary Issues in Tourism, Himalaya Mumbai.
7. Das, M. (1999): India: A Tourist Paradise, Sterling Publishers, New Delhi.
8. E.Inskeep: Tourism Planning: An Integrated and Sustainable Development Approach, Van Nostrand and Reinhold, New York, 1991.
9. G.Shaw and A.M.Williams: Critical Issues in Tourism: A Geographical Perspective, Blackwell, Oxford, 1994.
10. H.Robinson: A Geography of Tourism, Macdonald and Evans, London, 1976.
11. J. Lee: Tourism and Development in the Third World, Routledge, London, 1988.
12. N.K.Garg (1996): Tourism and Economic Development, Avishkan, Jaipur.
13. P.C.Sinha: International Encyclopaedia of Tourism Management, Vol.1-12, Anmol, New Delhi
14. Pearce, D. G. (1987): Tourism Today: A Geographical Analysis, Longman, Harlow.
15. R.K.Kaul: Dynamics of Tourism and Recreation, Inter India, New Delhi, 1985.
16. Ryan Cris (1991): Recreational Tourism: A Social Science Perspective, Routledge, London.
17. Smith, L. J. S. (2010): Tourism Analysis: A Handbook, Halstead Press, Sydney.

Course Code: MGEE531N

Course: Elective

Title of the Paper: Social Geography

Credits 4+0

Units	Topics	Sub Topics	Periods
1	Evolution and Approach's	Evolution and Definition of social geography, scope of social geography, Approach's to social geography, Relation of social geography with other social sciences	15
2	Characteristics Structure and Processes.	Concepts of society: Meaning, definition, characteristics of society, elements of society, types of society: tribal society, Agriculture Society, Industrial society. Concept of social structure and processes.	15
3	Spatial Distribution	Spatial Distribution of social groups in Indian :- Tribe, Caste, Religion and Language	15
4	Problems and Planning	Social problems in India: - Juvenile Delinquency, corruption, communalism & unemployment.	15
Continuous Internal Assessment			

Course outcomes

- To analyse and understand complex relationship of society and spatial components.
- To introduce a systemic framework for understanding on society and space.

Suggested Readings:

1. AgarwalBina, 1994. A Field of One's Own: Gender and Land Rights in South Asia, Cambridge University Press.
2. Ahmed, A. 1999. Social Geography, Rawat publications, Jaipur.
3. Ahmed, A. 1993. (ed) Social Structure and Regional Development: A Social Geography Perspective, Rawat Publications, Jaipur.
4. Ali, S.M. (1969) The Geography of the Puranas, Delhi: People's Publishing House.
5. Singh, K.S. 1993. People of India Vol I to XI, Oxford University Press, New Delhi.
6. Raza, M. and Ahmed, A. 1990. An Atlas of Tribal India, Concept Publishing Co, Delhi.
7. Sopher, D. (ed.) 1980. An Exploration of India: Geographical Perspectives on Society and Culture, Cornell Press, New York.
8. Schwartzberg, J. 1978. A Historical Atlas of South Asia, University of Chicago Press, Chicago.
9. Crane Robert, I. 1973. Regions and Regionalism in South Asian Studies: An Exploratory Study, Duke University Durham.
10. Massey Doreen, 1994. Space, Place and Gender, University of Minnesota Press, Minneapolis.
11. Registrar General of India, 1972. Economic and Socio cultural Dimensions of Regionalization of India, Census Centenary Monograph No 7, New Delhi.
12. Pannikar, K.M. 1959. Geographical Factors in Indian Histor, BharatiyaVidyaBhavan, Bombay.
13. SubbaRao, B. 1958. Personality of India, MS University Press, Baroda.
14. Singh B.N. 2023. Social and Cultural Geography, Pravalika Publication. Prayagraj.