AC:
Item No.

Rayat Shikshan Sanstha's

KARMAVEER BHAURAO PATIL COLLEGE, VASHI,

AUTONOMOUS COLLEGE

Sector-15- A, Vashi, Navi Mumbai -400 703

NAAC Grade "A+" with CGPA 3.53

Department of Geography

Program: M.A.- I

Course: Geography

Semester: I and II

(As per New Education Policy (NEP-2020)
with effect from the academic year 2023-24)

Karmaveer Bhaurao Patil College Vashi, Navi Mumbai

Autonomous College

[University of Mumbai]

Syllabus for Approval

Sr. No.	Heading	Particulars
1	**Title of Course**	**M.A. Part-I. Sem.-II Geography**
2	**Eligibility for Admission**	**B.A. Geography Degree**
3	**Passing Marks**	**40%**
4	**Ordinances/Regulations (if any)**	
5	**No. of Years/Semesters**	**One year/Two semester**
6	**Level**	**P.G.**
7	**Pattern**	**Semester**
8	**Status**	**NEP-2020**
9	**To be implemented from Academic year**	**2023-24**

Rayat Shikshan Sanstha's

Karmaveer Bhaurao Patil College, Vashi

(Autonomous College)

Department of Geography

Program: M.A Part- I

Details of Semester wise Course and Credits

Course No.	Course Title	Course Type	Course Code	CIE Marks	SEE Marks	Total	Credit Points
Semester I							
1.1	Principles of Geomorphology	Major	GEO401	40	60	100	4
1.2	Principals of Climatology	Major	GEO402	40	60	100	4
1.3	Tools And Techniques of Spatial Analysis- I	Major	GEO403	60	90	150	6
1.4	Introduction to Geographic Information System and Global Positioning system	Elective	GEO404A	40	60	100	4
	OR						
	Urban Geography		GEO404B	40	60	100	
1.5	Research Methodology	RM	GEO405	40	60	100	4
Total						**550**	**22**
Semester II							
2.1	Economic Geography	Major	GEO451	40	60	100	4
2.2	Population Geography	Major	GEO452	40	60	100	4
2.3	Tools and Techniques of Spatial Analysis- II	Major	GEO453	60	90	150	6
2.4	Applied Course of Travel & Tourism	Elective	GEO454A	40	60	100	4
	OR						
	Tropical Geomorphology		GEO454B	40	60	100	
2.5	Internship	OJT/FP	GEO455	40	60	100	4
Total						**550**	**22**

Draft Syllabus under Autonomy

For M.A. Programme at Semester I & II
with effect from the Academic Year 2023-24

MAJOR SUBJECT

PRINCIPLES OF GEOMORPHOLOGY

Course Outcome: After the completion of course, the students will have ability to:

1. Understand the functioning of Earth systems in real time and analyze how the natural and anthropogenic operating factors affect the development of landforms. [1]

2. Distinguish between the mechanisms that control these processes. [4]

3. Assess the role of structure, stage and time in shaping the landforms. [5]

4. Interpret geomorphological maps and apply the knowledge in geographical research. [6]

Modules at a Glance

PRINCIPLES OF GEOMORPHOLOGY

Unit No.	Unit	Unit Wise Weightage of Marks (in %)
1	Introduction to Geomorphology	15
2	Interior of the Earth and Endogenetic Movements	15
3	Exogenetic Processes	15
4	Cycle of Erosion and Slope Development	15

SEMESTER-I

M. A. GEOGRAPHY

PRINCIPLES OF GEOMORPHOLOGY (MAJOR)

SEMESTER: I COURSE CODE: GEO401 CREDITS: 4

Teaching Hours 60 + Notional Hours 60 = Total hours 120

Units	Name of the Sub Topic	No of Lectures
	Unit- I Introduction to Geomorphology	15
1.1	Nature, scope and content of Geomorphology	
1.2	Geological Evolution of Earth and Geological time scale	
1.3	Development of geomorphic thought, Catastrophism, Uniformitarianism, Neocatastrophism	
	Unit – II Interior of the Earth and Endogenetic Movements	15
2.1	Constitution of the earth's interior	
2.2	Continental Drift Theory- Sea Floor spreading- Plate Tectonic	
2.3	Geosynclines: Geosynclines Theory of Kobber, Holmes' Convection Current Theory, Theories of Isostasy	
2.4	Endogenetic movements- types, consequences (earthquakes and volcanoes) and landforms	
	Unit – III Exogenetic Processes	15
3.1	Fluvial Geomorphic system: processes and resulting landforms	
3.2	Glacial Geomorphic system: geomorphic processes and features	
3.3	Karsts landscape: development and processes	
3.4	Aeolian Geomorphic system: processes and landforms	
3.5	Coastal Geomorphic system: processes and landforms	
	Unit-IV Cycle of Erosion and Slope Development	15
4.1	Landscape evolution – Davisian Model of Cycle of Erosion	
4.2	Slope development and related theories: W. M. Davis	

REFERENCES:

1. Anhert, F., (1996), „Introduction to Geomorphology", Arnold, London, Sydney, Aukland.

2. Bloom, A. L. (2002), „Geomorphology: A Systematic Analysis of Late Cenozoic Landforms", Pearson Education Pvt. Ltd., and Singapore.

3. Christopherson, R.W. (1994), „Geosystems : An Introduction to Physical Geography", Macmillan College publishing Company, New York.

4. Dayal, P. (1990), „A Textbook of Geomorphology", Shukla Book Depot, Patna.

5. Engeln, O. D. Von (1944), „Geomorphology", The Macmillan Company, New York.

6. Fairbridge R. W. (1968) (ed.), „Encyclopaedia of Geomorphology", Reinhold, New York.

7. Mitchell, C. E. (1973), „Terrain Evaluation", Longmans, London.

8. Ritter, D.F., Kochel, R.C., Miller, J.R. (1995), „ Process Geomorphology", Wim. C. Brown Publishers, Chicago.

MAJOR SUBJECT

Principles of Climatology

Course Outcome: After the completion of course, the students will have ability to:

1. Understand the elements of weather and climate and its impacts at different scales. [2]

2. Explain the thermodynamic process of atmosphere. [4]

3. Analyze the global distribution of climatic phenomena [6]

4. Predict the behaviour of climatic parameters. [5]

Modules at a Glance

PRINCIPLES OF CLIMATOLOGY

Unit No.	Unit	Unit Wise Weightage of Marks (in %)
1	Introduction to Climatology	15
2	Insolation and Distribution of Temperature	15
3	Atmospheric pressure and Winds	15
4	Air Masses and Fronts	15

M. A. GEOGRAPHY

PRINCIPLES OF CLIMATOLOGY (MAJOR)

SEMESTER: I COURSE CODE: GEO402, CREDITS: 4

Teaching Hours 60 + Notional Hours 60 = Total hours 120

Units	Name of the Sub Topic	No of Lectures
Unit – I Introduction to Climatology		15
1.1	Nature and scope of Climatology	
1.2	Relationship of Climatology with Meteorology	
1.3	Structure and composition of Atmosphere	
1.4	Weather elements and climatic controls	
Unit – II Insolation and Distribution of Temperature		15
2.1	Insolation and heat balance of the Earth	
2.2	Temperature - Vertical, horizontal and seasonal variations	
2.3	Processes of heat energy transport	
2.4	Inversion of temperature	
Unit – III Atmospheric pressure and Winds		15
3.1	Atmospheric pressure – vertical and horizontal distribution	
3.2	General Circulation of atmosphere	
3.3	Types of winds – Geotropic, Gradient and local winds	
3.4	Origin of Monsoon: classical and recent views,	
Unit – IV Air Masses and Fronts		15
4.1	Air masses: Origin, classification, types	
4.2	Fronts: frontogenesis and frontolysis- classification of fronts	
4.3	Extra-tropical cyclones: formation and impacts	
4.4	Climatic Classification: Koppen theory,climate change,global warming and visit to IMD and report , concept of water balance problems and prospects	

REFERENCES:

1. Barry, R.S. & Chorley, R.J. (1971): Atmosphere, Weather and Climate, ELBS, Methuen & Co. Ltd., U.S.A.

2. Griffiths, J.F.(1966): Applied Climatology-An Introduction, Oxford University Press, London.

3. Lal, D.S.(1997):Climatology, ShardaPustakBhawan, Allahabad.

4. Mather, J. R.(1974): Climatology: Fundamentals and Applications, McGraw Hill Book Co. New York.

5. McBoyle, G.(1973): Climate in Review, Houghton Mifflin Co., Boston.

6. Subrahmanyam, V.P.(ed)(1983):Contribution to Indian Geography, Heritage Publishers, New Delhi , a) Vol. III - General Climatology b) Vol. IV- Applied Climatology

7. Harp, H.J. and Trinidade, O.D. (eds) (1990): Climate and Development, Springer Verlag, U.S.A. 8. Oliver, J.E. and Hidose, J.J. (1984): Climatology - An Introduction, Charles and Merrill, U.S.A.

8. Robinson, P.J. and Hendersen-Sellers, A.(1999): Contemporary Climatology, Pearson Education, London

MAJOR SUBJECT

TOOLS AND TECHNIQUES OF SPATIAL ANALYSIS- I

(Practical Paper)

Course Outcome: After successfully completion of this course, the students will be able to …

1. Generate thelongitudinal, Composite and Projectedprofile with the help of contour maps.[6]
2. Construct the diagramsfor the altimetric analysis and justify the answers.[6]
3. Understand the physical and chemical properties of Soil. [2]
4. Evaluate the climatic data using statistical techniques. [5]

Modules at a Glance

TOOLS AND TECHNIQUES OF SPATIAL ANALYSIS- I

Unit No.	Unit	Unit Wise Weightage of Marks (in %)
1	Techniques of Geomorphic Analysis	15
2	Techniques of Soil Analysis	15
3	Techniques of Climatic Data Analysis	15

M. A. GEOGRAPHY PRACTICAL PAPER

TOOLS AND TECHNIQUES OF SPATIAL ANALYSIS- I

(MAJOR)

SEMESTER: I COURSE CODE: GEO403 CREDITS: 6

Teaching Hours 60 + Notional Hours 60 = Total hours 120

Units	Name of the Sub Topic	No of Lectures
Unit – I Techniques of Geomorphic Analysis		20
1.1 A	**Drawing Profiles:**	
1.1.1	Longitudinal	
1.1.2	Composite and Projected	
1.2 B	**Methods of Slope Analysis**	
1.2.1	Wentworth's method of average slope determination	
1.2.2	Robison's method of slope analysis'	
1.2.3	G. H. Smith's method of slope analysis	
1.2.4	Construction of Block Diagram	
1.3 C	**Altimetric Analysis**	
1.3.1	Ring contour method	
1.3.2	Highest grid-cell elevation method	
Unit- II Techniques of Soil Analysis		20
2.1	Textural analysis	
2.2	Chemical Analysis – pH and moisture determination	
Unit – III Techniques of Climatic Data Analysis		20
3.1	Rainfall dispersion diagrams	
3.2	Wind roses	
3.3	Water surplus-deficiency graphs	
3.4	Climatograph	
3.5	Climograph: Hyther graph, Taylor's climograph	
3.6	Index of aridity and index of moisture	

REFERENCES:

1. King, C. A. M. (1978): Techniques in Geomorphology, Edward Arnold, London.
2. Miller, A.A. (1966): The Skin of the Earth, Methuen, London.
3. Monkhouse, F.J. and Wilkinson, H.R. (1971): Maps and Diagrams, Methuen, London.
4. Cole, J.R and King , C.A.M. (1968): Quantitative Geography, John Wiley And Sons, London.
5. Goudie, A. (1981): Geomorphological Techniques, George Alien And Unwin, London.
6. Hammond, R. And McCullagh, P.S. (1974): Quantitative Techniques in Geography: An Introduction, Oxford University Press, London. MahmoodAslam (1977): Statistical Methods in Geographical Studies, Rejesh Publication, New Delhi.
7. Singh, Gopal (2001): Map Work and Practical Geography, Vikas Publishing House Pvt. Ltd.
8. Singh, L.R. (2011): Fundamentals of Practical Geography, ShardaPustakBhavan, Allahabad.
9. Singh, R.L. and Singh, R. B. (2004): Elements of Practical Geography, Kalyani Publishers, New Delhi – Ludhiana.

ELECTIVE COURSE

Introduction to Geographic Information System and Global Positioning System

Course Objectives:

1. To introduce the students about the basic concepts of GIS.
2. To acquaint the students with the utility and applications of GIS Technique.
3. To create the awareness about Geospatial technology among the students.
4. To inculcate skill of map making among the students by using GIS Technique

Course Outcomes: On successfully completion of this course, the students will able to -

1. Comprehend knowledge about the concepts in GIS.
2. Differentiate Raster and Vector data
3. Understand the basic elements of Map
4. Compose Thematic maps using GIS.

Modules at a Glance

Unit No.	Unit	Unit Wise Weightage of Marks (in %)
1	Introduction to GIS	15
2	Data Types & Models	15
3	Introduction to Map Elements	15
4	Software based Practical	15

M.A.-I GEOGRAPHY (SEMESTER- I)
INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEM AND GLOBAL POSITIONING SYSTEM

COURSE CODE: GEO404A: COURSE CREDIT: 04

Teaching Hours 60+ Notional Hours 60.= Total hours 120

Units	Name of sub units	No of Lectures
Unit – I Introduction to GIS		
1.1	Definition of GIS, Nature and Scope of GIS	
1.2	History of Development of GIS	
1.3	Components GIS- Hardware, Software, Humanware and Data,coordinate projection.	**15**
1.4	Application of GIS	
Unit-II Data Types & Models		
2.1	Spatial Data – Concept, Sources	
2.2	Data Models – Raster & Vector	15
2.3	Non-spatial Data – Concept, Sources	
2.4	Data Models – Relational, Network, Hierarchical & Object-orientated	
Unit- III Global Positioning System		
3.1	GPS : Concept, Segments, Applications	
3.2	Types of GPS – GPS Data Accuracy and Errors	
3.3	Factors Affecting GPS Data - Global Navigation System	**15**
3.4	Ground Survey and Demarcation of Point, Line and Polygon Features with GPS Device – Transfer GPS Data to Computer with Software's like Easy GPS	
Unit-IV Software based Practical		
4.1	Geo-referencing of Toposheet/Map	
4.2	Digitization of Point, Line & Polygon (at least one layer of each)	
4.3	Creating and Editing digitized features, Topology building Data Attachment	**15**
4.4	Creation of Layout and Map	

Reference Books:

- Burrough, P. A. and McDonnell, R. A. (2000): Principles of Geographical Information Systems, Oxford University Press, New York.
- Chang, K. T. (2008): Introduction to Geographic Information Systems, Avenue of the Americas, McGraw-Hill, New York.
- Debashis, C. and Sahoo, R. N. (2015): Fundamentals of Geographic Information System, Viva Books Private Limited.
- DeMers, M. N. (2008): Fundamentals of Geographic Information Systems, John Wiley and Sons, New Delhi.
- Heywood, I., Cornelius, S. and Carver, S. (2011): An Introduction to Geographical Information Systems, Pearson Education, New Delhi.
- Karlekar, S. (2007): BhaugolikMahitiPranali (GIS), Diamond Publications, Pune.
- Korte, G. B. (2001): The GIS Book, Onward Press, Bangalore.
- Longley, P. A., Goodchild, M. F., Maguire, D. J. and Rhind, D. W. (2002): Geographical Information Systems and Science, John Wiley & Sons, Chichester.
- Lo Albert, C. P., Yeung and Albert K. W. (2002): Concepts and Techniques of Geographical Information Systems, Prentice Hall of India, New Delhi.

ELECTIVE COURSE
URBAN GEOGRAPHY

Course Outcome: After successfully completion of this course, the students will be able to …

1. Explain the demographic, economic and social aspects and understand the urbanization trends, urban sprawl, fringes of urban geography.[2]
2. Compare and contrast the concept of Industrialization, political economy of urbanization with their characteristics. [4]
3. Compare and contrast the concept of Industrialization, political economy of urbanization with their characteristics. [4]
4. Determine the elements of city plan and prepare the master plan. [6]

Modules at a Glance

Unit No.	Unit	Unit Wise Weightage of Marks (in %)
1	Urbanization Process and Urban Systems	15
2	Urbanization Process, Capitalism and development	15
3	Contemporary Urban issues & Urban policy and planning	15
4	Understanding the Urban Transformation with Special Reference to Mumbai Metropolitan Region	15

M. A. GEOGRAPHY

URBAN GEOGRAPHY

SEMESTER: I COURSE CODE: GEO404B, COURSE CREDITS: 4

Teaching Hours 60 + Notional Hours 60 = Total hours 120

Unit No.	Name of the Sub Topics	No of Lectures
Unit – I Urbanization Process and Urban Systems		15
1.1	The bases of urbanization- Demographic, economic and social aspects- Origins of the cities- Urbanization Trends – urban fringe, urban sprawl and suburbanization	
1.2	Urban Land use – various approaches – Classical, Neo-classical approaches – Human, Ecology, land economics, activity systems	
1.3	Urban location of economic activities– Urban morphology and land use- Critical Perspective	
1.4	Urban System- Evolution, growth and organization- Primacy, hierarchy and balance– urban functions and Town classification	
Unit – II Urbanization Process, Capitalism and development		15
2.1	Capitalism and urban development - Urbanization in the Industrialized world -Political economy of urbanization.	
2.2	Urbanization in the Third World - Concept of peripheral urbanization - Salient characteristics- slums and Urban poverty- Capitalism and urban development -Urbanization in the industrialized world	
2.3	Colonial and post-colonial structure – Concepts of dualism and urban economic base in Third World Cities	
2.4	Theoretical Perspectives on role of Cities in regional and national development – cumulative Causation- Core and Periphery and growth pole theory - Top-down and bottom-up approach of urban and regional Planning	
Unit – III Contemporary Urban issues & Urban policy and planning		15
3.1	Price of land and vertical and horizontal growth of cities, Urban sprawl	
3.2	Socio-economic and environmental issues of urban region	
3.3	Policies of Urban development	
3.4	Need of city planning, Elements of city plan, Master Plan of towns, New towns	
Unit – IV Understanding the Urban Transformation with Special Reference to Mumbai Metropolitan Region		15
4.1	Slum redevelopment in Mumbai- the case of Dharavi	
4.2	Issues of urban planning and environment in Kalyan-Dombivali Municipal region	
4.3	Mumbai a reclaimed city and challenges in urban planning, rural urban fringe urban poverty and urban slum.	
4.4	The Planned City of Navi Mumbai: A Critical Perspective	

REFERENCES:

1. Carter, H (1972): The Study of Urban Geography, Edward Arnold.

2. A. Latham, D. McCormack, K. McNamara, D. McNeill (2009): Key Concepts in Geography, Sage.

3. Harvey, D.(1973): Social Justice and the City, Arnold

4. Abu-Lughod, J. and Hay, R. Jr. (1977): Third World Urbanisation, Maarouta Press.

5. Gugler. J. (ed.)(1988): The Urbanisation of the Third World, O.U.P 6. Sassen, S. (1991): The Global City, Princeton University Press.

6. Clarke, D. (1982): Urban Geography: An Introductory Guide, Groom Helm.

7. Marcuse, P. and Kempen, R.V. (eds.),(2000): Globalizing Cities: A New Spatial Order, Blackwell,

8. Short, J. R. (1996): The Urban Order, Basil Bleckwell.

9. Smith, N. (1996): The New Urban Frontier, Rutledge

10. King A. D. (1990): Global Cities, Rutledge.

11. Simmonds, R. and Hack, G. (2000): Global City Regions, Spon Press.

12. Markusen, A.R., et al. (1991): Second Tier Cities- Rapid Growth beyond the Metropolis, University of Minnesota Press.

13. Allen J. Scott (ed.), (2001): Global City Regions, Trends, Theory & Policy, Oxford University Press.

14. David Harvey (1985): The Urbanization of Capital, John Hopkins University Press.

RESEARCH METHODOLOGY

Course Objectives:

1. To develop the understanding of the basic concept of research
2. To develop the understanding of the basic framework of sampling and data collection
3. To develop the understanding of various sampling methods and techniques
4. To identify various sources of information for data collection.
5. Understanding of the conducting survey on various issues and develop the Report writing skill of students

Course Outcome:

1. Demonstrate the ability to choose methods appropriate to research aims and objectives
2. Understand the limitations of particular research methods
3. Develop skills in qualitative and quantitative data analysis and presentation
4. Develop advanced critical thinking skills
5. Demonstrate enhanced writing skills

Modules at a Glance
RESEARCH METHODOLOGY

Unit No.	Unit	Unit Wise Weightage of Marks (in %)
1	Introduction to Research Methodology	15
2	Research Problem and Research Design	15
3	Methods of Data Collection	15
4	Research Report Writing	15

M. A. GEOGRAPHY

RESEARCH METHODOLOGY

SEMESTER-I COURSE CODE: GEO405; COURSE CREDIT: 04

Teaching Hours 60 + Notional Hours 60= Total hours 120

Units	Name of the sub Topic	No of Lectures
	Unit – I Introduction to Research Methodology	15
1.1	Research: definition, scope and significance	
1.2	Objectives of Research	
1.3	Types of Research	
1.4	Research Ethics	
	Unit- II Research Problem and Research Design	15
2.1	Research Problem: definition, identification and necessity	
2.2	Technique involved in defining a problem	
2.3	Meaning, needs and features of research design	
2.4	Types of research design	
	Unit- III Methods of Data Collection	15
3.1	Primary Data: Interview Method, Questionnaire Method, Observation Method, Survey Method, Case Study Method, Experimental Method	
3.2	Secondary Data :Government Sources, Syndicated Sources, Other Types of Sources	
	Unit - IV Research Report Writing	15
4.1	Types of Research Report: Technical Report, Popular Report	
4.2	Characteristics of Good Research Report Writing	
4.3	Techniques of Research Report Writing: i) Structure and organization of research reports - Title, abstract, key words, introduction ii) Methodology, results, discussion, conclusion, references, footnotes iii) Concepts of Case Study	

References

1. Kothari , C. R. (2004) – Research Methodology -Methods and techniques, New Age.

2. Mishra, H.N. and Sing, V.P. (1998)- research Methodology in Geography, Rawat Publication

3. Clifford, N. Fresh S, Valentine, G. (2010) - Key Methods in Geography, Saga Publication

4. Gregory , K. J. (2000) – The changing Nature of Physical Geography, Arnold, London

5. Harvey, David (1971) – Explanation in Geography, Edward Arnold , London

6. Chorley, R. J. and P. Hagg-tt(ed) (1967) – Models in Geography, Methuen

7. Gaum, Carl G., Graves, Harod F., and Hoffman, Lyne, S.S., (1950): Report Writing, 3rd ed., New York: Prentice-Hall.

8. Kothari, C.R. (2004): Research Methodology: Methods and Techniques, New Age

SEMESTER – II

MAJOR SUBJECT

ECONOMIC GEOGRAPHY

Course Outcome: After successfully completion of this course, the students will be able to …

1. To understand the introduction of economic geography [2]
2. To gain the knowledge about manufacturing, growth & development of industrial geography. [1]
3. To understand the energy resources [2]
4. To understand the transport system and trade block [2]

Modules at a Glance

Unit No.	Unit	Unit Wise Weightage of Marks (in %)
1	Introduction to Economic Geography	15
2	Growth of Industrial Geography	15
3	Energy Resources	15
4	Transportation and Trade Block	15

M. A. GEOGRAPHY
ECONOMIC GEOGRAPHY

SEMESTER: II COURSE CODE: GEO451 CREDITS: 4

Teaching Hours 60 + Notional Hours 60 = Total hours 120

Units	Name of the Sub Topic	No of Lectures
	Unit – I Introduction to Economic Geography	15
1.1	Definition, Nature and scope of economic geography	
1.2	Fundamentals of economic geography	
1.3	Approaches to the study of economic geography	
1.4	Basis of economic processes: Production, exchange & Consumption. Classification of economic activities-	
	Unit – II Growth of Industrial Geography	15
2.1	Definition & Importance of manufacturing	
2.2	Concept of growth and development of Industrial geography	
2.3	Principles of Industrial Location – Profit maximization - Least cost location –Substitution –Interdependence – Territorial production complexes	
2.4	Factors of Industrial Location	
2.5	Weber &Losch theory, Industrial policy in India	
	Unit- III Energy Resources	15
3.1	Meaning and classification of resources	
3.2	World energy situation;	
3.3	Sources of Energy: Coal, Oil, Natural gas and Nuclear energy, OPEC	
3.4	Energy crisis.	
	Unit – IV Transportation and Trade Block	15
4.1	Modes of transportation	
4.2	Characteristics and relative significance of modes of transportation,	
4.3	Accessibility and connectivity;	
4.4	Interregional and Intraregional: Ullman's tried-Complementarily- Intervening Opportunity- Transferability.	
4.5	Globalization, Regional Trade blocks EEC, EFTA, & WTO. G20 and SAARC.	

REFERENCES:

1. Hartshorne, T. A. and Alexander, J. W. (2010): Economic Geography, PHI Learning, New Delhi

2. Knox, P., Agnew, J. and McCarthy, L. (2008): The Geography of the World Economy, Hodder Arnold, London

3. Lloyd, P. and Dicken, B. (1972): Location in Space: A Theoretical Approach to Economic Geography, Harper and Row, New York

4. Siddhartha, K. (2000): Economic Geography: Theories, Process and Patterns, Kisalaya Publications, New Delhi

5. Smith, D. M. (1971): Industrial Location: An Economic Geographical Analysis, John Wiley and Sons, New York

MAJOR SUBJECT
Population Geography

Course Outcome:

1. Understand the distribution patterns of population on global and regional scale. [2]
2. Calculate fertility, mortality with the help of data. [6]
3. Illustrate the migration theories predict the migration process. [3][6]
4. Recognize the problems of urbanization and analyze the policies of urbanization. [2][4]
5. Explain the limits of growth, human development and gender equity. [2]

Modules at a Glance

Unit No.	Unit	Unit Wise Weightage of Marks (in %)
1	Introduction to Population Geography	15
2	Measures of Fertility and Mortality	15
3	Population Theories	15
4	Population Resources and Policy	15

M. A.-I GEOGRAPHY

POPULATION GEOGRAPHY

SEMESTER: II COURSE CODE: GEO452, CREDITS: 4

Teaching Hours 60 + Notional Hours 60 = Total hours 120

Units	Name of the Sub Topic	No of Lectures
	Unit – I Introduction to Population Geography	15
1.1	Meaning, nature, scope and signify etc with the help of significance of population geography	
1.2	Sources of population data	
1.3	Factors influencing population distribution and density	
1.4	Population distribution patterns- world and India	
1.5	Population composition-demographic, socio-cultural, economic	
	Unit – II Measures of Fertility and Mortality	15
2.1	Fertility- measures and methods of estimations & Spatio-temporal variations	
2.2	Mortality- measures and methods of estimation	
2.3	Migration- measures and methods of estimations	
2.4	Urbanization-issues, perspectives and policies.	
	Unit – III Population Theories	15
3.1	Theories of population growth: Malthus, Neo-Malthusian, Marx, Demographic Transition Model	
3.2	Migration theories: Raven stein and Everette Lee; Epidemiological Transition	
	Unit – IV Population Resources and Policy	15
4.1	Population as resource, population and development debate, population as ecosystem	
4.2	Limits to Growth, Population resource region, Human development, gender equity	
4.3	Population Policies-perspectives from developed and developing countries of the world.	
4.4	National Population Policy of India	

REFRENCES:

1. Bhende, A. and Kanitkar, T. (2008): Principles of Population Studies, Himalaya Publishing House, Mumbai

2. Chandana, R. C. and Sidhu, M. S. (1980): Introduction to Population Geography, Kalyani, New Delhi
3. Clarke, J. F. (1965): Population Geography, Pergamon Press, Oxford

4. Garnier, B. (1966): Geography of Population, Longman, London

5. Hussain, M. (1999): Human Geography, Rawat Publication, Jaipur

6. Mandal, R. B. (1979): Introduction to Rural Settlement, Concept Publishing Company, New Delhi

7. Sawant, S. B. (1994): Population Geography, Mehta Publishing House, Pune

8. Shivramkrishanan, K. C. et al (2005): Handbook of Urbanization in India, Oxford, Delhi

MAJOR SUBJECT

Practical Paper

Tools and Techniques of Spatial Analysis- II

Course Outcome:

1. Generate the locations map of mean, median center in particular place and analyze the results. [6]
2. Prepare the matrices table with the help of minimum aggregate distance and calculate accessibility and connectivity. [6]
3. Distinguish between Aspatial and spatial data. [4]
4. According to the geographical data, select the appropriate diagram / graph/image/ picture. [5]

Modules at a Glance

Unit No.	Unit	Unit Wise Weightage of Marks (in %)
1	Statistical Techniques	24
2	Nature and application of spatial data	20
3	Computer processing of geographical data	16

M. A. GEOGRAPHY PRACTICAL PAPER

TOOLS AND TECHNIQUES OF SPATIAL ANALYSIS- II

SEMESTER: II COURSE CODE: GEO453, CREDITS: 6

Teaching Hours 60 + Notional Hours 60 = Total hours 120

Units	Name of the Sub Topic	No of Lectures
Unit – I Statistical Techniques		24
1.1 A	**Measures of Central Tendency**	
1.1.1	Measures of central tendency: mean center, median center and mode , weighted mean, Dispersion	
1.1.2	Z score – different applications and interpretations.	
1.2 B	**Network Analysis**	
1.2.1	Topological graphs -Connectivity- Calculations of Alpha, beta and gamma indices.	
1.2.2	Mapping of relative accessibility and connectivity – Matrices-point of minimum aggregate travel distance	
Unit- II Nature and application of spatial data		20
2.1	Data types – qualitative and quantitative	
2.2	Aspatial and spatial data	
2.3	Scales of measurement of data: nominal, ordinal, interval and ratio – symbolization and representation – interpretation and relationships	
2.4	Sources of data – Primary and secondary	
2.5	Designing a questionnaire	
Unit – III Computer processing of geographical data		16
3.1	Symbolization, Preparation of matrix	
3.2	Diagrammatic Representation.	
3.3	Compilation of data	
3.4	Computation of data: qualitative and quantitative data based on descriptive statistical measures application of computer programmes	

REFERENCES:

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2. Anson, R. W. and Ormeling, F. J., (Ed.) (1993): Basic Cartography for Students and Technicians, Vol.I, International Cartographic Association and Elseiver Applied Science Publishers, London.

3. Dickinson, G. C. (1977) Statistical Mapping and the Presentation of Statistics, Edward Arnold Ltd., London.

4.Monkhouse, F. J. and H. R. Wilkinson, (1971): Maps and Diagrams, Methuen & Co. Ltd., London.

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12. Fotheringham,A.S., Brunsdon, C., Charlton,M ,(2000) Quantitative Geography: Perspectives on Spatial Data Analysis, Sage Publication Ltd, London,

13 .Baily,T.C., and Gatrell, A. C, (1995), Interactive Spatial Data Analysis, Prentice Hall, London

14. Griffith ,D. A. , Layne, L.J.,(2002) A Casebook for Spatial Statistical Data Analysis: A Compilation of Analyses of Different Thematic Data Sets , Amazon.com

15. Wicox, P.R. (2003), Applying Contemporary Statistical Techniques, Academic Press, Amsterdam

ELECTIVE COURSE

APPLIED COURSE OF TRAVEL & TOURISM

Course Objectives:

1. To develop basic framework to understand the various elements of tourism management.
2. To evaluate the role of transport in travel and tourism industry.
3. To develop the skills to arrange, manage and implement various types of tours.

Course Outcome:

1. Students will be able to perform online as well as offline booking and cancellation procedures for different available modes of travel and tourism.
2. Students will be able to acquire earning skills in tourism industry.

Modules at a Glance

Unit No.	Unit	Unit Wise Weightage of Marks (in %)
1	Introduction to Travel and Tourism	15
2	Local Tourism	15
3	Tour planning and Skill development	15
4	Project work and Visit to tourist place	15

M.A. - I GEOGRAPHY

APPLIED COURSE OF TRAVEL & TOURISM

SEMESTER- II COURSE CODE: GEO454A COURSE CREDIT: 04

Teaching Hours 60 + Notional Hours 60 = Total hours 120

Units	Name of the sub Topics	No of Lectures
	Unit- I Introduction to Travel and Tourism	15
1.1	Basic concepts: Travel, Tourism, Tourist, Transport	
1.2	Types of Tourist and Tourism	
1.3	Types of transportation	
1.4	Supporting Infrastructure: Transportation, Accommodation, Communication facility, Security, Finance, Tourist Guide and Government Policy (Only short introduction)	
	Unit- II Local Tourism	15
2.1	Concept and need of local tourism	
2.2	Introduction to local tourist places	
2.3	Potential of local tourism and available infrastructure	
	Unit- III Tour planning and Skill development	15
3.1	Basic skills: Communication, Time Management, Computer operating, online booking, Net banking, Cancellation of booking and ticket, etc.	
3.2	Framing the tour plan (Itinerary): Budget (Costing), Duration, Insurance, Route and other requirements for individual, family, group and mass level tours	
3.3	Promotion of tourism	
3.4	Plan for educational tour (long or short): Permission for tour, ticket booking, students concession and ticket cancellation, etc.	
	Unit- IV Project work and Visit to tourist place	15
4.1	Itinerary design of short or long tour (local, state level and national level: Cost, duration, requirements, booking processes for transportation (Railway, Air and Road) and Accommodations (Youth hostel, Resort, Dormitory, Hotels, Service Apartments, etc.) and Insurance.	
4.2	International Tour Pre-planning: Need and types of passport and visa, documents required for passport and visa, other necessary documents required for International tours, International Date Line, Time difference, GMT and Indian Standard Time with help of internet sources.	
4.3	One short tour (Not more than two days duration) and Preparation of tour report.	

Text Books:

1. Bhatia. Tourism Development (New Delhi, Sterling)
2. Seth: Tourism Management (New Delhi, Sterling)
3. Kaul: Dynamics of Tourism (New Delhi, Sterling)
4. Mill and Morrison – The Tourism system an Introductory Text (1992) Prentice Hall
5. Cooper, Fletcher, Tourism, Principles and practices (1993) Pitman
6. Burkart and Medlik Tourism, Past, Present and Future (1981) Heinemenn, ELBS.
7. P.S. Gill, Dynamices of Tourism (4 Vols) Anmol Publication.
8. P.C. Sinha, Tourism Management. Anmol Publication.

References:

1. Travel Industry : Chunky Gee et-al
2. Tourism Systems - Mill and Morisson
3. Tourism Management Vol - 4 - P.C. Sinha
4. Tourism Development - R. Gartner
5. Studies in Tourism - Sagar Singh
6. Tourism: Principles and Practices - Cooper C., Fletcher J., Gilbert D and Wanhil.
7. Tourism: Principles and Practices - McIntosh , R.W.
8. Tourism : Past, Present and Future - Burkart &Medli

ELECTIVE COURSE

Course Outcome:

Modules at a Glance

Unit No.	Unit	Unit Wise Weightage of Marks (in %)
1	Tropical Environment	15
2	Landform Assemblages In Tropics	15
3	Weathering and Slopes	15
4	Exogenic Processes and Typical Forms in Humid and Arid Tropics	15

M.A. GEOGRAPHY PAPER- I

TROPICAL GEOMORPHOLOGY

SEMESTER- II; COURSE CODE: GEO 454B; COURSE CREDIT: 04

Teaching Hours 60 + Notional Hours 60= Total hours 120

Units	Name of the sub Topics	No of Lectures
	Unit- I Tropical Environment	15
1.1	Tropical Region: Definition and characteristics of tropical region, nature, scope and development of tropical geomorphology, Concept of morphogenetic region.	
1.2	Major Controls on tropical landscape: Tectonic processes, climate, anthropogenic activities.	
1.3	Geomorphic processes in tropics: Weathering, mass wasting	
1.4	Exogenetic processes	
	Unit- II Landform Assemblages In Tropics	15
2.1	Structural Landforms in Tropical areas: Precambrian shield, mountain chains, volcanoes,	
2.2	Formation and distribution of Doms, Bornhardts and Tors in tropical areas.	
2.3	Planation surfaces: etchplain, peneplain, pediplain and inselbergs	
2.4	Structural landforms in tropical part of India with special reference to Deccan Plateaus; Planation surfaces in India.	
	Unit- III Weathering and Slopes	15
3.1	Weathering process and factors of deep weathering profiles; products of weathering.	
3.2	Duricrusts and types: laterite, calcrete, silcrete processes of formation, profiles and landforms.	
3.3	Slope processes and development in humid tropics: hill slopes, pediments and gullies	
3.4	Mass wasting: processes and types	
	Unit- IV Exogenic Processes and Typical Forms in Humid and Arid Tropics	15
4.1	Fluvial Processes: Nature of fluvial processes tropics, fluvial landscapes in tropics river terraces, flood plains, alluvial fans	
4.2	Coastal Processes: Nature of coastal processes in tropics and typical coastal landforms in tropics Mangroves and Mudflats, Corals, Deltas.	
4.3	Glacial processes in tropical highlands:	
4.4	Aeolian Processes in tropical areas: Badland Morphogenesis,	

REFERENCES:

1. Birot, P. (1968): Cycle of Erosion in Different Climates, B. T. Batsford, London.
2. Bloom, A.L. (2002): Geomorphology: A Systematic analysis of late Cenozoic
3. Landforms, Prentice-Hall of India, New Delhi.
4. Bombay Geographical Association (1970-71): Geddes Memorial Volume: Maratha
5. Lands, Bombay.

6. Dikshit, K.R., Kale, V.S., and Kaul, M.N. (1994): India Geomorphological Diversity,
7. Rawat, Jaipur.
8. Douglas, J. and Spencer, I. (1985): Environmental Change and Tropical Geomorphology,
9. Gorge Allen and Unwin, London.
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11. Garner, H.F. (1974): Origin of Landscapes A synthesis in Geomorphology, OxfordUniversity Press, New Delhi.
12. Huggett, R. (2007): Fundamentals of Geomorphology, Routledge, London.
13. Jog, S.R. (ed.) (1995): Indian Geomorphology, vols. I and II Rawat, Jaipur.
14. Kale, V.S. and Gupta, A. (2001): Introduction to Geomorphology, Orient Longman,Calcutta.
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18. Sharma, A. (1993): Ecology of Landslide Damages, Poiter, Jaipur.
19. Slaymaker, O. et.al. (2009): Geomorphology and Global Environmental Change,Cambridge Univeristy Press, UK.
20. Thomas, M.F. (1994): Geomorphology in the Tropics: A study of weathering anddenudation in low latitudes, John Wiley and Sons, Chichester.
21. Tricart, J. and Coilleux, A. (1972): Introduction to Climatic Geomorphology, LongmanGreen, London.
22. Twidle, C.R. (1971): Structural Landforms, the MIT, Cambridge.
23. Wirthmann, A. (2013): Geomorphology of the Tropics, Springer Science & BusinessMedia.

M.A. GEOGRAPHY PAPER- I

INTERNSHIP

SEMESTER- II; COURSE CODE: GEO 455; COURSE CREDIT: 04

Teaching Hours 60 + Notional Hours 60= Total hours 120

M. A. GEOGRAPHY PART- I
SEMESTER- I & II
(With effect from the academic year 2023-24)
EVALUATION PATTERN OF THEROY PAPERS

INTERNAL ASSESSMENT- 40 MARKS

Practical Examination will be conducted separately

Evaluation type	Marks
Internal Evaluation	**40**
a) Online Examination	20
b) Class Room Presentation	10
c) Field Visit and report writing d) Project Report e) Attendance Seminar, Conference and workshop f) Paper Presentation in Seminar &Conference g) Making Models (As per the syllabus) h) Free Online Courses	10

EXTERNAL ASSESSMENT- 60 MARKS

- Duration – 2 Hours for each paper.
- There shall be eight questions each of 15 marks on each unit.
- All questions shall be compulsory with internal choice within the questions.

Questions	Sub. Question	Unit	Marks
1	**Any Two** A) B) C) D)	Based on Unit - I	12
2	**Any Two** A) B) C) D	Based on Unit – II	12
3	**Any Two** A) B) C) D	Based on Unit – III	12
4	**Any Two** A) B) C) D	Based on Unit – IV	12
5	MCQ	ALL UNIT	12

M. A. GEOGRAPHY PART- I

SEMESTER-I AND II

(With effect from the academic year 2023-24)

EVALUATION PATTERN OF PRACTICAL PAPERS

INTERNAL ASSESSMENT- 40 MARKS

Practical Examination will be conducted separately

Evaluation type	Marks
Internal Evaluation	**40**
a) Class Test	20
b) Problem Solving /Viva	10
c) Field Visit and report writing d) Project Report e) Attendance Seminar, Conference and workshop f) Paper Presentation in Seminar &Conference g) Making Models (As per the syllabus) h) Free Online Courses i) Assignments	10

EXTERNAL ASSESSMENT- 60 MARKS

- Duration – 3 Hours for each paper.
- Each unit carries 15 marks.
- All questions shall be compulsory with internal choice within the questions.
- **External Examiner/s will be appointed from other university.**

Questions	Unit	Marks
1	Based on Unit - I	15
2	Based on Unit – II	15
3	Based on Unit – III	15
4	Journal + Viva	15