



PROGRAMME STRUCTURE

**SHARDA SCHOOL OF HUMANITIES & SOCIAL
SCIENCES**

**Master of Arts in Geography
Programme Code: SHS0136**

Batch: 2024-2026

1.1 Vision, Mission and Core values of the University

Vision of the University

To serve the society by being a global University of higher learning in pursuit of academic excellence, innovation and nurturing entrepreneurship.

Mission of the University

- 1. Transformative educational experience**
- 2. Enrichment by educational initiatives that encourage global outlook**
- 3. Develop research, support disruptive innovations and accelerate entrepreneurship**
- 4. Seeking beyond boundaries**

Core Values

- Integrity**
- Leadership**
- Diversity**
- Community**

1.2 Vision of the School of Humanities and Social Sciences

Vision of the School

To become one of the leading schools of humanities and social sciences by setting global standards of excellence in ingenious curriculum, teaching-learning methods, professional development, and cross-cultural understanding

Mission of the School

- M1. To promote learning and employability skills among students.**
- M2. To develop interdisciplinary approach in Social Sciences, in line with the market requirements.**
- M3. To guide and facilitate students to succeed in their academic profession.**
- M4. To encourage research and promote knowledge creation.**

Core Values

- **Integrity**
- **Leadership**
- **Diversity**
- **Community**

1.3 Program Educational Objectives (PEO)

The ‘Master of Arts in Geography’ programme offered by the department, aims to

PEO 1. empower students with knowledge and skills for spatial thinking and analysis,

PEO2: demonstrate a detailed understanding of the selected core discipline of study.

PEO 3. navigate real world problems and contribute to society in a meaningful way”.

PEO 4. imbibe scientific way of looking at the surrounding and simultaneously remain focussed on the human welfare, utility of resources, environmental aspects.

Programme Specific Outcomes (PSOs)

At the end of the two-year (four-semester) course, students will have complete knowledge about evolved, contemporary subjects in geography, covering and converging both physical and human geography.

PEO Statements	School Mission 1	School Mission 2	School Mission 3	School Mission 4
PEO1:	3	2	2	1
PEO2:	2	4	3	2
PEO3:	3	1	2	3
PEO4:	2	4	3	1

1.4 Program Outcomes of the MA Geography:

PO1: Content Knowledge: Demonstrate thorough knowledge of the key concepts of physical and human geography.

PO2: Understanding of Theory: Confident grasp of theoretical of the classical and contemporary geography theories.

PO3: Communication Skills: Demonstrate the ability to enhance geographical knowledge to others with clarity.

PO4: Research Skills: Develop an ability to solve social scientific research methods to address geographical problems.

PO5: Analytical Skills: Possess analytical skills in areas such as policy analysis, administration/ management, communication, quantitative analysis and problem- solving.

PO6: Values in Geography: Apply a geographical perspective to analyze how social structure manifests itself in their own lives to actively participate in civic life.

1.5 Program Specific Outcomes of the MA Geography:

PSO1: Acquiring higher knowledge of physical Geography.

PSO2: Acquiring advanced knowledge of Human Geography and the spatial connection of physical geography and human geography.

PSO3: Relevantly learn statistical data analysis and Application of GIS and modern geographical map making technique to identify and utilize such highly technical technique as a problem-solving research interface

Program Structure M.A. Geography
School of Humanities and Social Sciences

SEMESTER: I (Term 1)

S.No.	Subject Code	Subjects	TeachingLoad			Credits	Type of Course
			L	T	P		
Theory Subjects							
1.	MGO101	Advanced Geomorphology and Morphometry	4	1	0	5	Core
2.	MGO102	Modern Geographical thoughts	5	0	0	5	Core
3.	MGO103	Demography and Population Geography	3	1	0	4	Core
4.	MGO104	Advanced Political Geography	4	0	0	4	Core Elective
Practical							
5.	MGP001	Advanced cartography	1	0	4	3	Core (Practical)
6.	MGP002	Basics of Remote Sensing, Geographical Information System (GIS) and Global Navigation Satellite System (GNSS) (Swayam)	0	0	2	1 Certificate MOOC (Qualifier)	Practical MOOC
Total Credits						22	

SEMESTER II (Term II)

S.No.	Subject Code	Subjects	TeachingLoad			Credits	Type of Course
			L	T	P		
Theory Subjects							
1.	MGO105	Applied Climatology and Biogeography	3	1	0	4	Core
2.	MGO106	Development Theory, Regional planning, and Policy	3	1	0	4	Core
3.	MGO107	Settlement Geography	3	1	0	4	Core
4.	MGO108	Historical Geography	4	0	0	4	Core (Elective)
Practical							
5	MGP003	Research Methods and Statistical Techniques in Spatial Analysis	1	0	4	3	Core Practical
6.	MGP004	Geographical Field Training	1	0	2	2	Core Practical
7.	MGP005	Municipal Solid Waste Management (NPTEL, IIT Guwahati)	0	0	0	1 (MOOC)	Core Practical Elective
Total Credits						22	

SEMESTER III, (Term I)

S. No.	Subject Code	Subjects	Teaching Load			Credits	Type of Course:
			L	T	P		
Theory Subjects							
1.	MGO201	New Economic Geography	4	0	0	4	Core
2.	MGO202	Geography of migration	3	1	0	4	Core
3.	MGO203	Socio-Cultural Geography	4	0	0	4	Core
4.	MGO204	Geography of health and well being	3	1	0	4	Core Elective
Practical Subjects							
5.	MGP201	Digital Image processing and Terrain modelling	1	0	4	3	Core Practical
6.	MGP202	Village Survey: Instrumental and Socio-economic	1	0	4	3	Core Practical
Total Credits						22	

SEMESTER: IV (Term II)

S. No.	Subject Code	Subjects	Teaching Load			Credits	Type of Course:
			L	T	P		
1	MGO205	Geography of Urban Environment and Urban Management	3	1	0	4	Core
2	MGO206	Flow analysis and Transport Geography	2	2	0	4	Core
3	MGO207	Watershed Management	3	1	0	4	Core Elective
4	MGP203	Dissertation I	0	0	24	12	Core
Total Credits						24	

Credit Summary

Semester I	Semester II	Semester III	Semester IV	Total
22	22	22	24	90

SEMESTER I

School: SSHSS		Batch: 2024-2026	
Programme: M.A. Geography		Current Academic Year: 2024-2025	
Branch: Geography		Semester: I	
1	Course Code	MGO101	
2	Course Title	Advanced Geomorphology and Morphometry	
3	Credits	5	
4	Contact Hours (L-T-P)	4-1-0	
	Course Type	Core Course (CC)	
5	Course Objective	The course aims to explain basic principles for development of landforms through time to familiarise with the application part of fundamental concepts in physical systems and the application of the geomorphological features.	
6	Course Outcomes	<p>The student will be able to;</p> <p>CO1: list the linkages between landscape form and processes.</p> <p>CO2: demonstrate sound knowledge about the evidence and tectonic evidence to predict the changing formation of the earth.</p> <p>CO3: construct models by using models, data and logical reasoning to critically evaluate and connect information about geomorphic processes.</p> <p>CO4: analyse the applicability of geomorphology.</p> <p>CO5: explain the techniques of geomorphological analysis.</p> <p>CO6: develop the comprehensive knowledge and applicable aspects of Geomorphology.</p>	
7	Course Description	The course will provide a deep understanding of geomorphology, methods of measuring tectonic changes and overall utility of the subject.	
	Unit 1	Concepts in Geomorphology	CO Mapping
	A	<ul style="list-style-type: none"> Fundament concepts of time: cyclic, graded and steady state, dynamic equilibrium 	CO2, CO5
	B	<ul style="list-style-type: none"> Scopes of geomorphology, approaches in analysis of geomorphology, 	CO1, CO2
	C	<ul style="list-style-type: none"> Recent trends and concepts in geomorphology. 	CO1, CO2
	Unit 2	Global morphology and tectonics:	
	A	<ul style="list-style-type: none"> Development of ideas of global tectonics, continental drift, palaeo-magnetic evidence, global seismicity, sea-floor spreading 	CO2, CO3
	B	<ul style="list-style-type: none"> Surface processes and landforms: slope processes and forms, fluvial processes and landforms, aeolian processes and landforms, glacial and periglacial processes and landforms, work of ocean and coastal landforms 	CO2, CO3

	C	<ul style="list-style-type: none"> Planetary geomorphology and approaches to planetary geomorphology 	CO2, CO3
	Unit 3	Endogenetic and Exogenetic	
	A	<ul style="list-style-type: none"> Processes Interaction: rate of uplift, measurement techniques, denudation rates, factors controlling denudation rates, 	CO2, CO3
	B	<ul style="list-style-type: none"> Effects of tectonics on drainage development, sea level change 	CO2, CO3
	C	<ul style="list-style-type: none"> Understanding geomorphology of regions and disasters. 	CO2, CO3
	Unit 4	Application Aspects of Geomorphology	
	A	<ul style="list-style-type: none"> Geomorphic hazards and mitigation measures; 	CO3, CO4
	B	<ul style="list-style-type: none"> Geomorphology in engineering construction; 	CO3, CO4
	C	<ul style="list-style-type: none"> Geomorphology in groundwater studies; Geomorphology in mining, agriculture and rural infrastructural development. 	CO3, CO4
	Unit 5	Morphometry	
	A	<ul style="list-style-type: none"> Basics of morphometry 	CO2, CO6
	B	<ul style="list-style-type: none"> Delineation of basin; Linear aspects: stream ordering, bifurcation ratio, law of stream numbers, length ratio, law of Stream length, areal aspects: stream frequency, drainage density, circularity ratio 	CO6
	C	<ul style="list-style-type: none"> Relief aspects: hypsometric curve, hypsometric integral curve, clinographic curve. 	CO5, CO6
	Mode of examination	Theory	
	Weightage Distribution	IA	EA
		25%	75%
	Text book	1. Huggett, R.J. 2011. <i>Fundamentals of Geomorphology</i> , Routledge, New York 2. Kale, V.S. and Gupta, A. 2001. <i>Introduction to Geomorphology</i> , Orient Longman, Hyderabad, India. 3. Thornbury, W.D. 1969. <i>Principles of Geomorphology</i> , John Wiley and Sons, New York	

Reference Book	<ol style="list-style-type: none"> 1. Allison, Robert (ed.) 2002. <i>Applied Geomorphology: Theory and Practice</i>, John Wiley & Sons Ltd., Chichester, U.K. 2. Anderson, R.S. and Anderson, S.P. 2010. <i>Geomorphology: The Mechanics and Chemistry of Landscapes</i>, Cambridge University Press, Cambridge. 3. Bierman, P.R. and. Montgomery, D.R. 2014. <i>Key Concepts in Geomorphology</i>, Macmillan Education, New York. 4. Bloom, A.L. 2003. <i>Geomorphology: A Systematic Analysis of Late Cenozoic Landforms</i>, Prentice-Hall of India, New Delhi. 5. Bridges, E.M. 1990. <i>World Geomorphology</i>, Cambridge University Press, Cambridge, U.K. 6. Clark, M.J. (ed.) 1988. <i>Advances in Periglacial Geomorphology</i>, John Wiley & Sons Ltd., Chichester, U.K. 7. Condie, K.C. 2003. <i>Plate Tectonic and Crustal Evolution</i>, Butterworth-Heinemann, Oxford, Burlington. 8. Knighton, A.D. 1984. <i>Fluvial Forms and Processes</i>, Edward Arnold Publishers Ltd., London, U.K. 9. Leopold, L.B., Wolman, M.G., and Miller, J.P. 1964. <i>Fluvial Processes in Geomorphology</i>, W.H. Freeman Company, San Francisco. 10. Richards, K.S. 1982. <i>Rivers: Form and Processes in Alluvial Channels</i>, Methuen & C., Ltd., London. 11. Schumm, S.A. 1977. <i>The Fluvial System</i>, John Wiley & Sons, Inc., New York. 12. Singh Savindra. 2014. - , Prayag Pustak Bhawan, Allahabad. 13. Summerfield, M.A. 1991. <i>Global Geomorphology</i>, Pearson Prentice Hall, U.K.
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COs- POs Matrix

- 1- Low
- 2- Medium

Pos/ Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	2
CO2	2	1	3	3	2	2	2	2	3	2	2
CO3	2	1	3	3	2	2	2	2	2	3	3
CO4	2	1	3	3	2	2	2	2	3	3	2
CO5	2	1	3	3	2	2	2	2	3	2	3
CO6	2	3	2	3	3	1	2	3	3	3	3

3- High

School: SSHSS		Batch: 2024-2025	
Programme: M.A. Geography		Current Academic Year: 2024-2025	
Branch: Geography		Semester: I	
1	Course Code	MGO102	
2	Course Title	Modern Geographical Thoughts	
3	Credits	5	
4	Contact Hours (L-T-P)	5-0-0	
	Course Type	Core Course (CC)	
5	Course Objective	This course aims to provide knowledge of disciplinary developments post 1970. It aims to enable students to contextualize the conceptual traditions within geography along with the major philosophical influences. It promotes an understanding of the fluidity, expansion and inclusivity of Modern Geographical Thought as against imperial underpinnings and latent Eurocentricity.	
6	Course Outcomes	<p>The student will be able to;</p> <p>CO1: define the chronological introduction to the discipline specific growth of thoughts in geography.</p> <p>CO2: classify current debates within human geography and develop an understanding of the contexts within which these debates emerged.</p> <p>CO3: build and discern the ontological and epistemological undertone in the geography</p> <p>CO4: analyse and critically understand a broad range of contemporary socio-spatial issues that society experiences and undergoes.</p> <p>CO5: explain the fluidity, expansion, and inclusivity of Modern Geographical Thought as against imperial underpinnings and latent Eurocentricity.</p> <p>CO6: develop a basic social, cultural, political and economic understanding from global and local perspectives to a broad range of contemporary issues.</p>	
7	Course Description	The course traces the development of modern geographical thoughts and the advancement it led to broaden scope of geographical application in understanding social-economic and political aspects of the societies.	
	Unit 1	Brief Disciplinary History:	CO Mapping
	A	<ul style="list-style-type: none"> • Early origins, imperial influences and institutionalisation; a contested discipline. 	CO2, CO5
	B	<ul style="list-style-type: none"> • Man-environment interaction: new environmentalism; 	CO1, CO2



	C	<ul style="list-style-type: none"> • Concepts: space, place, environment, time and spatial organisations 	CO1, CO2
	Unit 2	Emergence of Modern Geography:	
	A	<ul style="list-style-type: none"> • Key developments in the 1970's; post positivist Humanistic Geography; 	CO2, CO3
	B	<ul style="list-style-type: none"> • Behavioural Geography; Marxist Geography, Feminist Geography; Postmodern Geographies. 	CO2, CO3
	C	<ul style="list-style-type: none"> • Planetary geomorphology and approaches to planetary geomorphology 	CO2, CO3
	Unit 3	Ontological turns and New Theories in Modern Geography:	
	A	<ul style="list-style-type: none"> • New ontologies of space and place; cultural turn, emotional turn, narrative turn; 	CO2, CO3
	B	<ul style="list-style-type: none"> • fieldwork and politics of representation; decolonizing geographical research; 	CO2, CO3
	C	<ul style="list-style-type: none"> • Grounded Theory, Minor Theory, Non-Representational Theory. 	CO2, CO3
	Unit 4	Modern Developments,	
	A	<ul style="list-style-type: none"> • Applied Geography and Relevance Debate, 	CO3, CO4
	B	<ul style="list-style-type: none"> • Impact of modern geographical thoughts in Indian geographical ideas. Colonial and Postcolonial geography and contributions of Indian geographers 	CO3, CO4
	C	<ul style="list-style-type: none"> • Regional Planning, Feminist Geography, 	CO3, CO4
	Unit 5	Future of Geography:	
	A	<ul style="list-style-type: none"> • Drivers of global relevance, emerging subfields, difference, diversity and greater inclusivity in a globalising world. 	CO2, CO6
	B	<ul style="list-style-type: none"> • Socio-spatial interconnections: Place-making, processes of place making in everyday lives, identities, difference and exclusion. 	CO6
	C	<ul style="list-style-type: none"> • Spatial Inequality and Regional Imbalances, Geographers and Policy 	CO5, CO6
	Mode of examination	Theory	
	Weightage	IA	EA
	Distribution	25%	75%

Text books	<ol style="list-style-type: none"> 1. Dikshit, R. D. (2004): Geographical Thought. A Critical History of Ideas. Prentice-Hall of India, New Delhi. (in English and Hindi). 2. Kapur, A. (ed.) (2001): Indian Geography – Voice of Concern. Concept Publishing. Company, New Delhi. 3. Taylor, G. (ed.) (1953): Geography in the Twentieth Century. Methuen and Company Ltd. and Company, London.
Reference books	<ol style="list-style-type: none"> 1. Harvey, D. (1969): Explanation in Geography. Arnold, London. 2. Harvey, M. E. and Holly, P.B. (2002): Themes in Geographic Thought. Rawat Publications, Jaipur and New Delhi. 3. Johnston, R.J. (1985): The Future of Geography, Metheun and Company Ltd., New York. (2003 edition published). 4. Johnston, R.J. and Sidaway, J.D. (2004): Geography and Geographers. 6th edition, Edward Arnold, London. 5. Martin, G. (2005): All Possible Worlds. A History of Geographical Ideas. 4th edition, Oxford University Press, New York. 6. Mathews, J. A. and Herbert, D. T. (eds.) (2004): Unifying Geography. Common Heritage, Shared Future. Routledge, London. 7. Peet, R. (1998): Modern Geographical Thought. Blackwell Publishers Inc., Massachusetts. 8. Sauer, C. O. (1963): Land and Life. University of California Press, Berkeley. 9. Sharma, P.R., Yadava, R.S., Sharma, V.N., (ed.) 2013: Inter Disciplinary Advances in Geography, R.K. Books, New Delhi. 10. Singh, R. L. and Singh, Rana P.B. (eds.) (1990): Literature and Humanistic Geography. National Geographical Society of India, BHU, Varanasi, Publication number 37

		<p>11. Singh, R. L. and Singh, Rana P.B. (eds.) (1992): The Roots of Indian Geography: Search and Research. National Geographical Society of India, B.H.U., Varanasi, Publication number 39.</p> <p>12. Singh, Rana P. B. (2004): Cultural Landscapes and the Lifeworld. Indica Books, Varanasi.</p> <p>13. Soja, E. (1989): Post-modern Geographies. Verso Press, London. Reprinted 1997: Rawat Publications, Jaipur and New Delhi.</p> <p>14. Tuan, Yi-Fu (1977): Space and Place. The Perspective of Experience. Edward Arnold, London.</p> <p>15. Singh, Ravi S (ed.) 2009. Indian Geography: Perspectives, Concerns and Issues. Jaipur: Rawat Publications</p> <p>16. Singh, Ravi S (ed.) 2009. Indian Geography in the 21st Century: The Young Geographers Agenda. New Castle upon Tyne, UK: Cambridge Scholars Publishing.</p>
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COs- POs Matrix

Pos/ Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	2
CO2	2	1	3	3	2	2	2	2	3	2	2
CO3	2	1	3	3	2	2	2	2	2	3	3
CO4	2	1	3	3	2	2	2	2	3	3	2
CO5	2	1	3	3	2	2	2	2	3	2	3
CO6	2	3	2	3	3	1	2	3	3	3	3

- 1. Low
- 2. Medium
- 3. High

School: SSHSS		Batch: 2024-2026	
Programme: M.A. Geography		Current Academic Year: 2024-2025	
Branch: Geography		Semester: I	
1	Course Code	MGO103	
2	Course Title	Demography and Population geography	
3	Credits	4	
4	Contact Hours (L-T-P)	3-1-0	
	Course Type	Core Course (CC)	
5	Course Objective	This course intends to orient the students towards interdisciplinary perspectives on population issues at different geographical scales. It will acquaint the candidate to appreciate the role of spatial perspectives towards showcasing population changes and its impact on the economy, society, environment and politics at diverse geographical spheres.	
6	Course Outcomes	<p>The student will be able to;</p> <p>CO1: choose and comprehend the demography and population subject matter of regions.</p> <p>CO2: classify and explain changes happening in population and its impact on the demography of a region.</p> <p>CO3: construct data detailing of different sources of demographic data, and well versed with debates on population-development linkages.</p> <p>CO4: examine the different components of population change, its drivers, and their consequences upon contemporary socio-economic, environmental, and political changes.</p> <p>CO5: explain population data by representing and draw diagrammatically.</p> <p>CO6: construct the population and demographies of the regions and the interplay of socio-economic factors.</p>	
7	Course Description	The course introduces students to the basic difference between the concepts of demography and population geography. The course lays out several theories in population growth and demographic impact which may lead to migration, population changes and population related problems.	
	Unit 1	Demography and Population Geography – Concept and Scope	CO Mapping

	A	<ul style="list-style-type: none"> • Concepts, scope and difference between demography and Population geography. 	CO2, CO5
	B	<ul style="list-style-type: none"> • Theories of Population – Malthusian & Optimum Theory of Population & Theory of Demographic Transition Sources of population data; Methodological problems; 	CO1, CO2
	C	<ul style="list-style-type: none"> • Sources of population data: Population Censuses, Vital Registration, Sample Registration System and Large-scale Demographic Surveys 	CO1, CO2
		•	
	Unit 2	Population Dynamics	
	A	<ul style="list-style-type: none"> • Distribution of Population; Population Growth: Trends and Theories; 	CO2, CO3
	B	<ul style="list-style-type: none"> • Mortality Patterns, Trends and population dynamics 	CO2, CO3
	C	<ul style="list-style-type: none"> • Fertility: Trend, Patterns and Determinants; Migration: Trends and Patterns 	CO2, CO3
	Unit 3	Relationship between Population and Economic Development	
	A	<ul style="list-style-type: none"> • Resources and population: views of Julian Simon, Simon Kuznets and Tragedy of commons 	CO2, CO3
	B	<ul style="list-style-type: none"> • Population resource regions of the world and India 	CO2, CO3
	C	<ul style="list-style-type: none"> • Theories on population and economic development (Adam Smith, Malthus, Alfred Marshall, Keynes) 	CO2, CO3
	Unit 4	Population centric Problem and policies	
	A	<ul style="list-style-type: none"> • Problems of under, over, declining and zero population; 	CO3, CO4
	B	<ul style="list-style-type: none"> • Migration Theories: Ravenstien and Everetts Lee, Harris Todaro, Lewis-Fei-Ranis mode 	CO3, CO4
	C	<ul style="list-style-type: none"> • Concept of ageing, young, stationary and stable population 	CO3, CO4
	Unit 5	Population structure in India and representation of Population data	
	A	<ul style="list-style-type: none"> • Population characteristics in India (Population distribution, growth and density; Ethnicity, age-sex structure, rural-urban variation). 	CO2, CO6
	B	<ul style="list-style-type: none"> • Representation of population growth of India and the world using arithmetic and semi-log scales; 	CO6

		Population distribution map of India using dot and sphere/circle, cubes, combined; Density map of India by choropleth; compound and superimposed pyramid of population data;	
	C	<ul style="list-style-type: none"> Life Table: Basic concepts, types and forms of life tables and Population Projections 	CO5, CO6
	Mode of examination	Theory	
	Weightage Distribution	IA	EA
		25%	75%
	Text books	<ol style="list-style-type: none"> Bhende A.A. and Tara Kanitkar (2019)- 'Principles of Population Studies'- Himalaya Publishing House, Bombay . J.N. Desai M.L. Jhingan, B.K. Bhatt (2016), 'Demography', Vrinda Publications (P) Ltd. 	
	Reference books	<ol style="list-style-type: none"> Isher Judge Ahluwalia, Ravi Kanbur, P.K. Mohanty, (2014) 'Urbanisation in India: Challenges, Opportunities and the Way Forward'. P. K. Majumdar (2013), 'India's Demography: Changing Demographic Scenario in India', Rawat Publications. Bose, (2012), Studies in Demography, University of North Carolina P.K Majumdar (2010), 'Fundamentals of Demography', Rawat Publications Hans Raj (2007), 'Population Studies', Surjeet Publication, Delhi. Agarwal S.S. (1985) - 'India's Population Problem' – Tata McGraw Hill Publication, Bombay. Phadke V.S. & Swapna Banerjee Guha (Ed) (2007) - 'Urbanisation, Development and Environment' – Rawat Publication, New Delhi. K.C. Sivaramakrishnan, Amitabh Kundu, B.N. Singh, (2007) Handbook of Urbanization in India. Shekhar Mukherjee (2006) – 'Migration and Urban Decay' – Rawat Publication, New Delhi. Choubey. (2000), Population Policy in India, Kanishka Publications, New Delhi Government of India – (Various Reports), Census of India, New Delhi 	

COs- POs Matrix

Pos/ Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	2
CO2	2	1	3	3	2	2	2	2	3	2	2
CO3	2	1	3	3	2	2	2	2	2	3	3
CO4	2	1	3	3	2	2	2	2	3	3	2
CO5	2	1	3	3	2	2	2	2	3	2	3
CO6	2	3	2	3	3	1	2	3	3	3	3

1. **Low**
2. **Medium**
3. **High**

School: SSHSS		Batch: 2024-2026
Program: MA		Current Academic Year: 2024-2025
Programme: Geography		Semester: I
1	Course Code	MGO104
2	Course Title	Advanced Political Geography
3	Credits	4
4	Contact Hours (L-T-P)	4-0-0
	Course Type	Core Course (CC)
5	Course Objective	The objective of this course is to explore the main concepts and research themes in political geography today. Political geography represents a broad engagement with the interactive relationships between power and place, and the construction, contestation and reconfiguration of political geographic spaces that result.
6	Course Outcomes	The students will be able to CO1: recall and primarily recapitulate the concepts of state, boundaries, and territoriality. CO2: demonstrate understanding and the intricacies of power of place and identity. CO3: apply in depth understanding of political identification of state and people. CO4: analyse the global geographies of resistance. CO5: imagine and interpolate borderlessness and terrorism. CO6: test the theoretical part of political geography by global examples.
	Course Description	The course will address a range of topics, including territoriality, the state, the politics of space, critical geopolitics, symbolic landscapes, and GIS and mapping. Emphasizes theoretical issues but includes empirical material and/or case studies.
Unit 1 Introduction		



	A	Disciplinary History of Political Geography	CO2, CO3
	B	Territoriality, Boundaries, and the State	CO2, CO3
	C	Embodying the Nation-State; The Performative State	CO2, CO3
Unit 2 Place, Power, Identity			
	A	The Politics of Symbols, Memory, and Landscapes Natural Resources, Identity and Power	CO2, CO3
	B	Performativity: B/Ordering Identity, Territorializations: B/Ordering Space. Identity as Practice/Narrative; Geographies of Identity and Difference	CO2, CO3
	C	Electoral geography	CO2, CO3
Unit 3 Political identification			
	A	Embodying the Nation-State; The Performative State	CO2, CO3
	B	Citizenship/Statelessness	CO2, CO3
	C	Asylum Seeking/Domopolitics	CO2, CO3
Unit 4 Geographies of Resistance			
	A	Globalization, Governmentality and New Spaces of Citizenship?	CO2, CO3
	B	The Nation-State Strikes Back! Rising Nativism	CO2, CO3
	C	State Knowledge/Local Knowledge and Anti-Globalism in the 21st Century	CO2, CO3
Unit 5 Boundaries Resurgent			
	A	Immigration, Terrorism, and the “War on Terror”	CO2, CO3
	B	Foucault: Power Without Boundaries	CO2, CO3
	C	Governmentality	CO2, CO3
	Mode of examination	Theory	
	Weightage Distribution	IA	EA
		25%	75%
	Text books	1. Adhikari Sudeepura (1997) <i>Political Geography</i> , Rawat Publication, Jaipur	



	Reference Books	<ol style="list-style-type: none">1. Agnew, J. A. 1987. <i>Place and politics: The geographical mediation of state and society</i>. Boston: Allen & Unwin.2. Agnew, J. A., K. Mitchell, and G. Tuathail, eds. 2003. <i>A companion to political geography</i>. Malden, MA; Oxford: Blackwell Publishers.3. Cox, K. R., ed. 2005. <i>Political geography: critical concepts in the social sciences (4 volumes)</i>. London: Routledge. ———. 2002. <i>Political geography: territory, state, and society</i>. Oxford; Malden, Mass.:Blackwell.4. Flint, C., and P. J. Taylor. 2007. <i>Political geography: world-economy, nation-state, and locality</i>. Harlow, England; New York: Pearson/Prentice Hall.5. Sack, R. D. 1986. <i>Human territoriality: its theory and history</i>. Cambridge; New York: Cambridge University Press: Introduction, chapters 1 & 5 (pp. 1-27; 127-168).6. Cresswell, T. 2006. <i>On the move: Mobility in the modern Western world</i>. New York: Routledge. ———. 1996. <i>In place/out of place: Geography, ideology, and transgression</i>. Minneapolis: University of Minnesota Press.7. Glassman, J. 1999. State power beyond the 'territorial trap': the internationalization of the state. <i>Political Geography</i>, 18(6): 669-96.8. Murphy, A. B. 1990. Historical justifications for territorial claims. <i>Annals of the Association of American Geographers</i> 80 (4): 531-548.9. Newman, D., and A. Paasi. 1998. Fences and neighbours in the postmodern world: boundary narratives in political geography. <i>Progress in Human Geography</i> 22 (2): 186-207.10. Sibley, D. 1995. <i>Geographies of exclusion: Society and difference in the West</i>. London; New York: Routledge.
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School: SSHSS		Batch: 2024-2026	
Programme: M.A. Geography		Current Academic Year: 2024-2025	
Branch: Geography		Semester: I	
1	Course Code	MGP101	
2	Course Title	Advanced cartography	
3	Credits	3	
4	Contact Hours (L-T-P)	1-0-4	
	Course Type	Core Course (CC)	
5	Course Objective	While studying the Advanced Cartography, the student shall be introduced to the theories and techniques in modern map-making concepts and develop practical skills in preparing and drafting of thematic maps. The course will help students to develop practical skills in preparing new map design techniques and applications of internet mapping, mobile mapping, and geo visualization.	
6	Course Outcomes	<p>The student will be able to;</p> <ul style="list-style-type: none"> • CO 1: show and create professional and aesthetically pleasing maps through thoughtful application of cartographic conventions. • CO 2: explain and combine appropriate visual variables to clearly represent geospatial data and communicate map content. • CO 3: construct, classify and generalize data, apply principles of colour and contrast, and choose projections and scales for maps of varying purposes. • CO 4: examine the current trends in cartographic science & technology, including virtual reality, open-source web tools, and geo-visual analytics. • CO 5: Demonstrate mastery in map production for communication and research; analyse, critique, and share high-quality maps. • Construct independently cartographical maps. 	
7	Course Description	The course introduces students to the history and theories in science of cartography. This course will give deep understanding in techniques of modern map-making concepts. Students will develop practical skills in preparing and drafting of thematic maps and in preparing new map design techniques. The students will also be exposed to the applications of internet mapping, mobile mapping and geo visualization.	
	Unit 1	Science of Cartography:	CO Mapping

	A	<ul style="list-style-type: none"> History and development of cartography; 	CO2, CO5
	B	<ul style="list-style-type: none"> Science of cartography and communication theory; 	CO1, CO2
	C	<ul style="list-style-type: none"> Sources of cartographic data; Cartographic techniques and methods in preparation of diagrams and maps 	CO1, CO2
	Unit 2	Measuring the Earth:	
	A	<ul style="list-style-type: none"> Properties of sphere; The earth: its shape and size; Coordinate reference system on the sphere; 	CO2, CO3
	B	<ul style="list-style-type: none"> Celestial coordinates: equatorial system, horizon system; 	CO2, CO3
	C	<ul style="list-style-type: none"> Geographical co-ordinates and grid system; UTM grids 	CO2, CO3
	Unit 3	Survey Methods:	
	A	<ul style="list-style-type: none"> Curvature of earth and its effect on survey and leveling; 	CO2, CO3
	B	<ul style="list-style-type: none"> Geographical Positioning System (GPS); 	CO2, CO3
	C	<ul style="list-style-type: none"> Trigonometrical surveying; Calculation of height by leveling 	CO2, CO3
	Unit 4	Cartography and visualisation 1	
	A	<ul style="list-style-type: none"> Soil and vegetation maps, Environmental maps 	CO3, CO4
	B	<ul style="list-style-type: none"> Population maps (rural and urban); 	CO3, CO4
	C	<ul style="list-style-type: none"> Atlas mapping; Pre and post census mapping; Automation and computer aided cartography 	CO3, CO4
	Unit 5	Cartography and visualisation 2	
	A	<ul style="list-style-type: none"> Multivariate Mapping 	CO2, CO6
	B	<ul style="list-style-type: none"> Web Mapping 	CO6
	C	<ul style="list-style-type: none"> Mobile Maps and Responsive Design Geo-visualization 	CO5, CO6
	Mode of examination	Practical	
	Weightage Distribution	IA	EA
		25%	75%

Textbooks	<ol style="list-style-type: none"> 1. Bailey, T. and Gatrell, A. C. (1995): <i>Interactive Spatial Data Analysis</i>. Longman, Harlow. 2. Dorling, D. and Fairborn, D. (1997): <i>Mapping. Ways of Representing the World</i>. Longman, Harlow. 3. Fraser Taylor, D.R. (1980): <i>The Computer in Contemporary Cartography</i>. John Wiley and Sons, New York.
Reference Books	<ol style="list-style-type: none"> 4. Fraser Taylor, D.R. (ed.) (1983): <i>Graphic Communication and Design in Contemporary Cartography</i>. John Wiley and Sons, New York. 5. Griffith, D. A. and Amehein (1997): <i>Statistical Analysis for Geographers</i>. Prentice Hall, Englewood Cliffs, New Jersey. 6. Kanetkar, T.P. and Kulkarni, S.V. (1967): <i>Surveying and Levelling, Part II</i>. A.V.G. Prakashan, Poona. 7. Keates, J.S. (1973): <i>Cartographic Design and Production</i>. Longman Group Ltd. 8. Mailing, D.H. (1973): <i>Co-ordinate Systems and Map Projections</i>. George Philip and Sons Ltd., 9. Monkhouse, F.J. and Wilkinson, H. R (1962): <i>Maps and Diagrams</i>. Methuen and Company Ltd. and Company Ltd., London. 10. Nag, P. (ed.) (1984): <i>Census Mapping Survey</i>. Concept Publishing Company, New Delhi. 11. Nair, N. B. (1996): <i>Encyclopaedia of Surveying, Mapping and Remote Sensing</i>. Rawat Publications, Jaipur and New Delhi. 12. Raisz, E. (1962): <i>Principles of Cartography</i>. McGraw Hill Books Company Inc., New York. 13. Misra, R.P. and Ramesh, A. (1999): <i>Fundamentals of Cartography</i>. Concept Publishing Company, New Delhi. 14. Rhind, B. and Adams, T. (ed.) (1983): <i>Computers in Cartography</i>. British Cartographic Society, London. 15. Robinson, A. H. H., Sale R., Morrison J. and Muehrcke, P. C (1984): <i>Elements of Cartography</i>. 6th edition, John Wiley and Sons, New York. 16. Shaw, G. and Wheeler, D. (1994): <i>Statistical Techniques in Geographical Analysis</i>. Prentice Hall, Englewood Cliffs, New Jersey. 17. Singh, R. L. and Singh, Rana P. B. (1993): <i>Elements of Practical Geography</i>. Kalyani Publishers, Ludhiana and New Delhi. 18. Thrower, N. (1996): <i>Maps and Civilisation Cartography, Culture and Society</i>. University of Chicago Press, Chicago. 19. Unwin, D. (1982): <i>Introductory Spatial Analysis</i>. Methuen and Company Ltd., London. 20. Walford, N. (1995): <i>Geographical Data Analysis</i>. John Wiley and Sons, Chichester. 21. Muehlenhaus, I. (2014). <i>Web cartography: map design for interactive and mobile devices</i>. Boca Raton, FL: CRC Press. 22. Peterson, M. P. (2014). <i>Mapping in the cloud</i>. New York; London: The Guilford Press. 23. Peterson, M. P., & International Cartographic Association (Eds.). (2003). <i>Maps and the internet</i> (1st ed). Amsterdam: London: Elsevier.

COs- POs Matrix

Pos/ Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	2
CO2	2	1	3	3	2	2	2	2	3	2	2
CO3	2	1	3	3	2	2	2	2	2	3	3
CO4	2	1	3	3	2	2	2	2	3	3	2
CO5	2	1	3	3	2	2	2	2	3	2	3
CO6	2	3	2	3	3	1	2	3	3	3	3

1. **Low**
2. **Medium**
3. **High**

School: SSHSS		Batch: 2024-2026	
Programme: M.A. Geography		Current Academic Year: 2024-2025	
Branch: Geography		Semester: I	
1	Course Code	MGP102	
2	Course Title	Basics of Remote Sensing, Geographical Information System (GIS) and Global Navigation Satellite System (GNSS) (Swayam)	
3	Credits	1	
4	Contact Hours (L-T-P)	0-0-2	
	Course Type	Core MOOC Course (CC)	
5	Course Objective	The course will lead students to appreciate the basic components of Remote Sensing and identify the different digital image processing and also expose students in better understanding the application of remote sensing.	
6	Course Outcomes	<p>The student will be able to-</p> <p>CO1: show the basic knowledge of remote sensing.</p> <p>CO2: illustrate the GNSS and GPS for spatial analysis.</p> <p>CO3: analyse applications of RS</p> <p>CO4: appraise application GIS for human utility</p> <p>CO5: construct models and application of knowledge of GNSS</p> <p>CO6: formulate the gained understanding of RS, GPS and GNSS</p>	
7	Course Description	During the course, the participants will be exposed to Basic Principles of Remote Sensing, Earth Observation Sensors and Platforms, Thermal Remote Sensing, Spectral Signatures of Different Land cover Features and Visual Image interpretation and Hyperspectral Remote Sensing technology. The course also includes various digital Image processing techniques namely Image Rectification and Registration, Image Enhancement techniques, Image Classification Techniques and Accuracy Assessment. Theoretical concepts are followed up with the practical demonstration using free and open source software.	
	Unit 1	Remote Sensing and Digital Image Analysis	CO Mapping
	A	<ul style="list-style-type: none"> Basic Principles of Remote Sensing, Earth Observation Sensors and Platforms Remote Sensing. 	CO1, CO2

	B	<ul style="list-style-type: none"> Spectral Signature of different land cover features, Image interpretation, Thermal & Microwave 	CO1, CO2
	C	<ul style="list-style-type: none"> Digital Image Processing: Basic Concepts of Rectification and Registration, Enhancement, Classification and accuracy assessment techniques. 	CO1, CO3
	Unit 2	Global Navigation Satellite System	
	A	<ul style="list-style-type: none"> Introduction to GPS and GNSS, receivers, processing methods, errors, and accuracy, 	CO2, CO3
	B	<ul style="list-style-type: none"> Geographical Information System: GIS, databases, topology, 	CO2, CO4
	C	<ul style="list-style-type: none"> spatial analysis and open-source software 	CO2, CO5
	Unit 3	RS and GIS Applications	
	A	<ul style="list-style-type: none"> Agriculture and Soil, Forestry and Ecology, 	CO2, CO3
	B	<ul style="list-style-type: none"> Geoscience and Geo-hazards, Marine and Atmospheric Sciences, 	CO2, CO4
	C	<ul style="list-style-type: none"> Urban and Regional Studies and Water Resources 	CO2, CO5
	Mode of examination	Online MOOC Swayam Besides attempting and attaining the MOOC certificate. Students will also be assessed at department level as per the university practical rubrics.	
	Weightage Distribution	IA	EA
		25%	75%
	Text Books	1. Gomarasca, M. A. (2009) Basics of Geometrics, Springer Science, New York 2. Burrough, P. A., & McDonnell, R., (2000). Principles of geographical Information Systems, Oxford Press, London.	
	Reference Books	1. Heywood, I., Comelius, S., and Carver, S., (1988). An Introduction to Geographical Information Systems, Addison Wiley Longmont, New York. 2. Burrough, P.A 1986: Principles of Geographical information Systems for Land Resources Assessment, Clarandone Press, Oxford.	

		<p>3. Avery, T.V, Interpretation of Aerial Photography Burgass, Publishing Company.</p> <p>4. Gautham, N.C 1970: Urban Landuse Study Through Aerial Photo binterpretations Techniques, Pink Publishing House, Mathura.</p> <p>5. American Society of Photogrammetry, 1983: Manual of Remote Sensing (2nd Edition), ASP Falls Church, Virginia.</p> <p>6. Campbell, J 1984: introductory Cartography, Printers Hall Englewood Cliffs, N.J</p> <p>7. Dent B.D 1985: Principles of Thematic Map Design, Addition - Wesley, Reading, Mass.</p> <p>Web Sources</p> <p>1. https://www.gislounge.com/web-based-gis/</p> <p>2. https://www.giscourse.com/online-resources-for-gis/</p> <p>3. https://www.esri.com/en-us/esri-press/browse</p> <p>4. https://libguides.ucd.ie/gisguide/gisbooks</p> <p>5. https://volaya.github.io/gis-book/en/gisbook.pdf</p> <p>6. https://open.umn.edu/opentextbooks/textbooks/67</p>
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COs- POs Matrix

Pos/ Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	2
CO2	2	1	3	3	2	2	2	2	3	2	2
CO3	2	1	3	3	2	2	2	2	2	3	3
CO4	2	1	3	3	2	2	2	2	3	3	2
CO5	2	1	3	3	2	2	2	2	3	2	3
CO6	2	3	2	3	3	1	2	3	3	3	3

- 1. Low
- 2. Medium
- 3. High

Semester II

School: SSHSS		Batch: 2024-2026	
Programme: M.A. Geography		Current Academic Year: 2024-2025	
Branch: Geography		Semester: II	
1	Course Code	MGO105	
2	Course Title	Applied Climatology and Biogeography	
3	Credits	4	
4	Contact Hours (L-T-P)	3-1-0	
	Course Type	Core Course (CC)	
5	Course Objective	In depth study of Climatology and Biogeography. The course indulges students in analysis of interrelationship between man and nature. The course will also expect students in detail discussion on floral and faunal provinces, its various dimensions, and methods of climate change analysis.	
6	Course Outcomes	<p>The student will be able to;</p> <p>CO1: define the dynamics of climate and related theories.</p> <p>CO2: interpret correlation between the Vegetation as an index of climate and climate.</p> <p>CO3: choose different aspects of floral and faunal provinces</p> <p>CO4: analyse methods of weather predictions.</p> <p>CO5: appraise the role of man and climate change and various policies to reduce human impact on climate.</p> <p>CO6: build the theories of climate, practical aspects of climate and intervening issues of global climate.</p>	
7	Course Description	Overall course is to foster comprehensive understanding of atmospheric phenomena; dynamics and global climates.	
	Unit 1	Introduction to Climatology:	CO Mapping
	A	<ul style="list-style-type: none"> climate components and its impact, 	CO2, CO5
	B	<ul style="list-style-type: none"> Composition and Structure of Atmosphere; Radiation Laws – Wave, Particle, Stefans-Boltzman & Weins Law 	CO1, CO2
	C	<ul style="list-style-type: none"> Solar Constant; Process of Precipitation; Adiabatic temperature change and Gas Law; Stability and instability Theories of origin of precipitation and related forms;; ocean currents and oceanic influence on climate. 	CO1, CO2 & CO6
	Unit 2	Biogeography and climate	
	A	<ul style="list-style-type: none"> methods and techniques of data analysis, downscaling methods, bioclimatology. 	CO2, CO3

	B	<ul style="list-style-type: none"> Evolution of major groups of floral and faunal provinces. 	CO2, CO3
	C	<ul style="list-style-type: none"> Ecological successions: stages and climax. 	CO2, CO3
	Unit 3	Representation of Climatic data:	
	A	<ul style="list-style-type: none"> Hythergraph & Ergograph 	CO2, CO3
	B	<ul style="list-style-type: none"> Trend analysis: Rainfall and temperature and Water Balance graph and Length of growing period 	CO2, CO3
	C	<ul style="list-style-type: none"> Surface soil loss equations of watersheds Flood frequency analysis: Waybill's plotting position, Gumbel and Log Pearson Type-III distributions, Water balance analysis; Humidity and aridity indices 	CO2, CO3
	Unit 4	Methods of weather analysis and prediction	
	A	<ul style="list-style-type: none"> Empirical Orthogonal Function, 	CO3, CO4
	B	<ul style="list-style-type: none"> Exceedance probability and relative operating characteristics (ROC), 	CO3, CO4
	C	<ul style="list-style-type: none"> regression methods, use of general circulation models for weather prediction 	CO3, CO4
	Unit 5	Climatic changes	
	A	<ul style="list-style-type: none"> Causes and theories; Global warming – Evidences, causes and effects; Atmospheric Hazards and Disasters, 	CO2, CO6
	B	<ul style="list-style-type: none"> climate and society, 	CO6
	C	<ul style="list-style-type: none"> weather and health. 	CO5, CO6
	Mode of examination	Theory	
	Weightage Distribution	IA	EA
		25%	75%
	Text book/s	1. Huggett, R.J. 1998. <i>Fundamentals of Biogeography</i> , Routledge, U.S.A. 2. Lal, D. S. 2003. <i>Climatology</i> , Allahabad: Sharda Pustak Bhawan.	
	Reference Books	1. Clarke, G. L. 1967. <i>Elements of ecology</i> , New York: John Wiley Pub.	



	<ol style="list-style-type: none">2. Haden-Guest, S., Wright, J. K. and Teclaff, E. M. 1956. <i>World Geography of Forest Resources</i>, New York: Ronald Press Co.3. Hoyt, J.B. 1992. <i>Man, and the Earth</i>, Prentice Hall, U.S.A.4. Mathur, H.S. 1998. <i>Essentials of Biogeography</i>, Anuj Printers, Jaipur.5. <i>Mountain and Tree cover in Mountain Regions Report. 2002</i>, UNEP-WCMC. 6. Singh Savindra 2015. <i>Paryawaran Bhoogol, Prayag Pushtak Bhawan</i>, Allahabad (Hindi). 7. Sivaperuman, Chandrakasan et al. 2018. <i>Biodiversity and Climate Change Adaptation in Tropical Islands</i>. Academic Press, London. 8. Trewartha G. T., 1980. <i>An Introduction to Climate</i>, McGraw Hill Company, New York. 9. Antonio Navarra, Valeria Simoncini, 2010. <i>A Guide to Empirical Orthogonal Functions for Climate Data Analysis</i>, Springer, Dordrecht, The Netherlands. 10. Antonio Navarra Eugenia Kalney, 2003, <i>Atmospheric Modeling, Data Assimilation and Predictability</i>, Cambridge University Press, London. 11. John E Hobbs, 2016. <i>Applied climatology: A study of Atmospheric Resources</i>, Elsevier, London 12. Russell D. Thompson and Allen Perry (eds.), 1997. <i>Applied Climatology: Principles and Practice</i>, Routledge, London. 13. Swadhin Behera and Toshio Yamagata 2016. <i>Indo-Pacific Climate Variability and Predictability</i>, World Scientific, Singapore. 14. Tim Palmer and Renate Hagedorn (eds.), 2006. <i>Predictability of Weather and Climate</i>, Cambridge University Press, London
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COs- POs Matrix

Pos/ Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	2
CO2	2	1	3	3	2	2	2	2	3	2	2
CO3	2	1	3	3	2	2	2	2	2	3	3
CO4	2	1	3	3	2	2	2	2	3	3	2
CO5	2	1	3	3	2	2	2	2	3	2	3
CO6	2	3	2	3	3	1	2	3	3	3	3

1. **Low**
2. **Medium**
3. **High**

School: SSHSS		Batch: 2024-2026	
Programme: M.A. Geography		Current Academic Year: 2024-2025	
Branch: Geography		Semester: II	
1	Course Code	MGO106	
2	Course Title	Development theory, Regional Planning and Policy	
3	Credits	4	
4	Contact Hours (L-T-P)	3-1-0	
	Course Type	Core Course (CC)	
5	Course Objective	Development and Regional planning is a field concerned with analytical approaches to problems that are specifically regional in nature. In the broadest sense, any social science analysis that has a spatial dimension is embraced by regional scientists. The aim of the course is to expose learners to a wide variety of techniques and methods used in regional analysis.	
6	Course Outcomes	<p>The student will be able to;</p> <p>CO1: conceptually understand the regional planning in development concerns.</p> <p>CO2: show the various planning processes of cities.</p> <p>CO3: select the issues which are important for social planning of spaces.</p> <p>CO4: discover the economic elements critical for planning.</p> <p>CO5: evaluate planning methods and standards to categorise planning processes.</p> <p>CO6: predict solutions and critically understand the regional planning process dimensions.</p>	
7	Course Description	The course will enable students to appreciate and analyse the implications of region's economic analysis in regional studies. The course will further give a comprehensive analyse the significance of decision analysis and spatial statistics.	
	Unit 1	Foundation of Regional planning	CO Mapping
	A	<ul style="list-style-type: none"> Origin and Context, Concept of Space and Region, 	CO2, CO5
	B	<ul style="list-style-type: none"> Rationalization of Regional Planning and Spatial Policy. 	CO1, CO2
	C	<ul style="list-style-type: none"> Definitions of town and country planning, Orthodoxies of planning, sustainability and rationality in planning, Components of sustainable urban and regional development 	CO1, CO2
	Unit 2	Types of Development Plans	
	A	<ul style="list-style-type: none"> Plan making process, planning methodology and 	CO2, CO3

	B	<ul style="list-style-type: none"> Case studies. <i>International</i>, London Master Plan, Chicago master Plan, 	CO2, CO3
	C	<ul style="list-style-type: none"> Case studies. <i>National</i>, Calcutta Master Plan, Delhi Master Plan and Madras Master Plan 	CO2, CO3
	Unit 3	Social planning and policy;	
	A	<ul style="list-style-type: none"> Community participation; Marginalization and concepts of inclusive planning, Gender concerns. Settlement Policy: 	CO2, CO3
	B	<ul style="list-style-type: none"> National Commission on Urbanisation, Rural Habitat Policy – Experiences in developing countries regarding Settlement structure, growth and its spatial distribution. 	CO2, CO3
	C	<ul style="list-style-type: none"> urban and rural social transformation and its effects on social life, safety, security and crime in urban areas and its spatial planning implications, social structure and spatial planning; 	CO2, CO3
	Unit 4	Elements of Micro and Macro Economics	
	A	<ul style="list-style-type: none"> Concepts of demand, supply, elasticity and consumer market; concept of revenue cost. Economic principles of land use planning 	CO3, CO4
	B	<ul style="list-style-type: none"> Economies of scale, economic and social cost, production and factor market; 	CO3, CO4
	C	<ul style="list-style-type: none"> Policies and strategies of economic planning, balanced vs. unbalanced growth, public sector dominance; changing economic policies, implications on land and case studies. 	CO3, CO4
	Unit 5	Planning Standards and technique	
	A	<ul style="list-style-type: none"> Spatial standards, performance standards and benchmarks, variable standards. UDPFI guidelines, zoning regulations and development controls. 	CO2, CO6
	B	<ul style="list-style-type: none"> Theil's index, ratios: urban – rural, urban concentration, metropolitan concentration; Social area and strategic. choice approach – interconnected decision area analysis. 	CO6
	C	<ul style="list-style-type: none"> Location dimensions of population groups – Social area and strategic choice approach – inter connected decision area analysis. 	CO5, CO6

	Mode of examination	Theory	
	Weightage Distribution	IA	EA
		25%	75%
	Text Book/s	<p>1. Glasson John and Marshall Tim, 2007. <i>Regional Planning</i>, Taylor and Francis, London and New York.</p> <p>2. Hall Peter and Tewdwr-Jones Mark, 2010. <i>Urban and Regional Planning</i>, Routledge, London and New York.</p> <p>3. Kulshreshta S. K. 2012. <i>Urban and Regional Planning in India: A Handbook for Professional Practice</i>, Sage, New Delhi.</p>	
	Reference Books	<p>1. Lichfield N., Kettle P. and Whitbread M. 2016. <i>Evaluation in the Planning Process: The Urban and Regional Planning Series (Volume 10)</i>, Elsevier.</p> <p>2. RahmaanA. U. 2011. <i>The Imperatives of Urban and Regional Planning: Concepts and Case Studies from the Developing World</i>, Xlibris Corporation.</p> <p>3. Stiftel B. and Watson V. 2005. <i>Dialogues in Urban and Regional Planning</i>, Psychology Press.</p> <p>4. Wang X. and Hofe R. 2008. <i>Research Methods in Urban and Regional Planning</i>, Springer.</p> <p>5. Wong C. 2006. <i>Indicators for Urban and Regional Planning: The Interplay of Policy and Methods</i>, Routledge</p> <p>6. Davis H. Craig, 1990. <i>Regional Economic Analysis and Project Evaluation</i>, UBC Press.</p> <p>7. Ebdon David, 1985. <i>Statistics in Geography</i>, Basil Blackwell.</p> <p>8. Isard Walter, 1960. <i>Methods of Regional Analysis: An Introduction to Regional Science</i>, MIT and John Wiley & Sons, Inc.</p> <p>9. Isard Walter, et. Al. 1998. <i>Methods of Interregional and Regional Analysis</i>, Aldershot, Ashgate.</p> <p>10. Klosterman, R. E. 1990. <i>Community Analysis and Planning Techniques</i>, Rowman & Littlefield Savage, Maryland.</p> <p>11. Krueckeberg, Donald A. and Silvers Arthur L. 1974. <i>Urban Planning Analysis: Methods and Models</i>, John Wiley, NY.</p> <p>12. Maki, Wilbur and Lichty Richard, 2000. <i>Urban Regional Economics: Concepts, Tools, Applications</i>, Iowa State Univ. Press.</p> <p>13. Oppenheim, Norbet, 1980, <i>Applied Models in Urban and Regional Analysis</i>, Prentice-Hall, New Jersey.</p> <p>14. Treyz George I. 1993. <i>Regional Economic Modelling: A Systematic Approach to Economic Forecasting and Policy Analysis</i>, Academic Publishers, Boston.</p>	

COs- POs Matrix

Pos/ Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	2
CO2	2	1	3	3	2	2	2	2	3	2	2
CO3	2	1	3	3	2	2	2	2	2	3	3
CO4	2	1	3	3	2	2	2	2	3	3	2
CO5	2	1	3	3	2	2	2	2	3	2	3
CO6	2	3	2	3	3	1	2	3	3	3	3

1. **Low**
2. **Medium**
3. **High**

School: SSHSS		Batch: 2024-2026	
Programme: M.A. Geography		Current Academic Year: 2024-2025	
Branch: Geography		Semester: II	
1	Course Code	MGO107	
2	Course Title	Settlement Geography	
3	Credits	4	
4	Contact Hours (L-T-P)	3-1-0	
	Course Type	Core Course (CC)	
5	Course Objective	The course will introduce students to the settlement aspects of human spatial interaction while giving them in depth understanding of history of settlement, rural urban dimensions, and growth of modern settlements.	
6	Course Outcomes	<p>The student will be able to;</p> <p>CO1: show understanding of theoretical foundations and recent trends in Settlement Geography.</p> <p>CO2: interpret and relate main aspects of rural settlement of the world.</p> <p>CO3 identify the evolution of Indian villages and changes occurred so far.</p> <p>CO4: list the urban settlement and principles of urban hierarchies.</p> <p>CO5: evaluate the policies for a better settlement evolution in India.</p> <p>CO6: propose the settlement factors, policies vis a vis global change.</p>	
7	Course Description	To provide an understanding of evolutionary, morphological and functional attributes of settlement at different scales. To sensitize the students about contemporary settlement issues and concern in the development model.	
	Unit 1	Settlement Geography	CO Mapping
	A	<ul style="list-style-type: none"> Settlement Geography, definition, nature and scope. Importance of Settlement studies in Geography 	CO2, CO5
	B	<ul style="list-style-type: none"> Settlement types, characteristics and differences. Human settlement as a system. 	CO1, CO2
	C	<ul style="list-style-type: none"> Factors influencing settlements. 	CO1, CO2
	Unit 2	Geography of Rural settlements	
	A	<ul style="list-style-type: none"> Characteristics of rural settlements; Theories and models of settlement diffusion: Eric Bylund (Sweden), Gunnar Olsson (Sweden), 	CO2, CO3



		David Grossman (Nigeria), John Hudson (USA); Contributions of Banaras School.	
	B	<ul style="list-style-type: none"> • Evolution and growth of rural settlements; Site and location of rural settlements; Distribution, spacing, and nature of dispersion; 	CO2, CO3
	C	<ul style="list-style-type: none"> • Types and patterns; Morphology of village: examples from Germany, Japan, Israel, African countries; Rural-service centres: nature, hierarchy, service area and interaction. 	CO2, CO3
	Unit 3	Characteristics of Indian Village	
	A	<ul style="list-style-type: none"> • Indian village as a system; Evolution and multiplicity; Pressure and constraints of village settlement; Morphology of Indian Villages; regional characteristics 	CO2, CO3
	B	<ul style="list-style-type: none"> • Religio-ritual, secular-economic and secular-economic interlocking system 	CO2, CO3
	C	<ul style="list-style-type: none"> • Transformation of Indian village: livelihood risk, food security and planning; Ideas of village and settlement: Mahatma Gandhi and B.R. Ambedkar 	CO2, CO3
	Unit 4	Geography of Urban Settlements	
	A	<ul style="list-style-type: none"> • Origin and growth of urban settlements 	CO3, CO4
	B	<ul style="list-style-type: none"> • Types of Urban Settlement on the basis of population and Location 	CO3, CO4
	C	<ul style="list-style-type: none"> • Types of urban settlement on the basis of Pattern. Ashok Dutts's models of South Asian city: port city and bazaar city 	CO3, CO4
	Unit 5	Settlement hierarchies and policies	
	A	<ul style="list-style-type: none"> • Purpose of Service centres of urban and rural settlements 	CO2, CO6
	B	<ul style="list-style-type: none"> • Policy formation to guide human migration: a settlement approach. (pre- and post-world war) 	CO6
	C	<ul style="list-style-type: none"> • Settlements policies and engagement of public. Examples from rural and urban transformation in India and western cities. 	CO5, CO6

	Mode of examination	Theory	
	Weightage Distribution	IA	EA
		25%	75%
	Text book/s*	<ol style="list-style-type: none"> 1. Daniel, P. (2002): Geography of Settlement. Rawat Publications., Jaipur and New Delhi. 2. Eidt, R. C., Singh, K. N. and Singh, Rana, P.B., (eds.) (1977): Man, Culture and Settlement. Kalyani Publishers., New Delhi. 	
	Reference books	<ol style="list-style-type: none"> 1. Desai, A.R. (2019): Rural Sociology, Popular Prakashan, Bombay. 2. Bahskar, G. and Reddy, A.V. (2005): Rural Transformation in India: The impact of Globalization, New Century Publication, New Delhi. 3. Jha, H. P. and Rodger G. (2018): The changing village in India, Oxford University Press, New Delhi. 4. Bhattacharya, S. (2012): Challenges of Livelihood and Inclusive Rural Development in Era of Globalization, Raj Publisher, Jalandhar, Punjab. 5. Fraster, T.G. (2013): Indians Rural Transformation and Development, D.K.Printworld, Delhi. 6. Ghosh, S. (1999): A Geography of Settlements. Orient Longman, Kolkata. 7. Hudson, F. S. (1976): A Geography of Settlements. MacDonald and Evans, New York. 8. Mitra, A. (1960): Report on House Types and Village Settlement Patterns in India. Publication Division, Govt. of India, New Delhi. 9. Oliver, P. (1987): Dwellings. The House across the World. University of Texas Press, Austin. 10. Rapoport, A. (1969): House, Form and Culture. Prentice-Hall, Inc., Englewood Cliffs, NJ. 11. Rykwert, J. (ed.) (2004): <i>Settlements</i>. University of Pennsylvania Press, University Park, USA. 12. Singh, R.L. (eds.) (1973): <i>Rural Settlements in Monsoon Asia</i>, National Geographical Society of India, Varanasi. 13. Singh, R. L., Singh, K.N. and Singh, Rana P.B., (eds.) (1975): Readings in Rural Settlement Geography, National Geographical Society of India, Varanasi. 14. Singh, R. L. and Singh, Rana P. B. (eds.) (1978): Transformation of Rural Habitat in Indian Perspective, National Geographical Society of India, Varanasi, Pub. 19. 15. Singh, R.L., Singh, K.N and Singh Rana P.B., (eds.) (1976): Geographic Dimensions of Rural Settlements. National Geographical Society of India, Varanasi, 16. Schwartzberg, J.: Historical Atlas of South Asia, Chicago University Press, Chicago, 1980. 	

COs- POs Matrix

Pos/ Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	2
CO2	2	1	3	3	2	2	2	2	3	2	2
CO3	2	1	3	3	2	2	2	2	2	3	3
CO4	2	1	3	3	2	2	2	2	3	3	2
CO5	2	1	3	3	2	2	2	2	3	2	3
CO6	2	3	2	3	3	1	2	3	3	3	3

1. **Low**
2. **Medium**
3. **High**

School: SSHSS		Batch: 2024-2026	
Programme: M.A. Geography		Current Academic Year: 2024-2025	
Branch: Geography		Semester: II	
1	Course Code	MGO108	
2	Course Title	Historical Geography	
3	Credits	4	
4	Contact Hours (L-T-P)	3-1-0	
	Course Type	Core Course (CC)	
5	Course Objective	Historical geography includes the history of exploration and map-making as well as the evolution of the academic discipline of geography itself. Historical geography has come to be a sub-discipline that studies how people influence the shaping of geographies over time.	
6	Course Outcomes	<p>The student will be able to;</p> <p>CO1: recall the evolution of historical geography.</p> <p>CO2: classify different sources of evidences and data collection methods</p> <p>CO3: construct the natural world and human world</p> <p>CO4: examine the growth of human Civilisation and power structure in these civilizations.</p> <p>CO5: theoretically evaluate the Indian civilizational spread in vedic, budhist and interconnection of civilisation in ancient world.</p> <p>CO6: formulate the historical geographical aspects in totality.</p>	
7	Course Description	A study of the various ways in which history has affected and has been affected by geography, including but not limited to physical, political, cultural, and environmental elements. Topics may include the emergence of ancient civilizations, the spread of Islam, and global commercial relations. An overall goal of this course is to prepare students for an interconnected world.	
	Unit 1	Evolution of Historical Geography:	CO Mapping
	A	<ul style="list-style-type: none"> Nature and Scope of Historical Geography. Its relationship between history and geography. 	CO2, CO5
	B	<ul style="list-style-type: none"> Introduction, early (1700-1920) modern (1920-50), 	CO1, CO2
	C	<ul style="list-style-type: none"> contemporary (1950 onwards). 	CO1, CO2
	Unit 2	Sources of evidence and data.	
	A	<ul style="list-style-type: none"> religious texts, epics and literary sources; travel accounts, archival sources, chronicles, old maps, revenue records; limitations of sources. 	CO2, CO3
	B	<ul style="list-style-type: none"> Archival research 	CO2, CO3

	C	<ul style="list-style-type: none"> Dendrochronology, Geological time scale and Carbon dating 	CO2, CO3
	Unit 3	Re-construction of Natural World: physical environment, landscape	
	A	<ul style="list-style-type: none"> Thinking like a geographer; Climate and History 	CO2, CO3
	B	<ul style="list-style-type: none"> Borders and Migration 	CO2, CO3
	C	<ul style="list-style-type: none"> Sino- Indian sub-continent 	CO2, CO3
	Unit 4	Historical Geographies of Human World:	
	A	<ul style="list-style-type: none"> Power and control (Population, and Civilization) 	CO3, CO4
	B	<ul style="list-style-type: none"> Rural transformations and urbanisation 	CO3, CO4
	C	<ul style="list-style-type: none"> industrialisation, trade and transport and communication. (Major land and ocean routes) 	CO3, CO4
	Unit 5	Historical Geography of India	
	A	<ul style="list-style-type: none"> Differences in the geographical approaches of ancient philosophers 	CO2, CO6
	B	<ul style="list-style-type: none"> Vedic, Buddhist, and medieval geography and Janapadas; administrative organization of space 	CO6
	C	<ul style="list-style-type: none"> Assimilation and geographical branches, travelers and traders. 	CO5, CO6
	Mode of examination	Theory	
	Weightage Distribution	IA	EA
		25%	75%
	Text Book/s	<ol style="list-style-type: none"> Robin Butlin, <i>Historical Geography: Through the Gates of Space and Time</i> (London, 1993) Brian Graham and Catherine Nash (Harlow, 1999); <i>Modern Historical Geographies</i>. Cambridge 	

	<p>Reference books</p>	<ol style="list-style-type: none"> 3. H. C. Darby, <i>The Relations of History and Geography: Studies in England, France and the United States</i> (Exeter, 2002) 4. Bruce M. S. Campbell and Ken Bartley, <i>England on the Eve of the Black Death: an Atlas of Lay Lordship, Land and Wealth, 1300–49</i> (Manchester, 2006); Mark Overton, <i>Agricultural Revolution in England: the Transformation of the Agrarian Economy</i> (Cambridge, 1996) 5. Charles W. J. Withers and Miles Ogborn (Manchester, 2004) <i>Georgian Geographies: Essays on Space, Place and Landscape in the Eighteenth Century</i>, ed. 6. Michael Williams, 'The relations of environmental history and historical geography', <i>Journal of Historical Geography</i>, 20 (1994), 3–21 7. Alan R. H. Baker, <i>Geography and History: Bridging the Divide</i> (Cambridge, 2003), pp. 37–71 8. Ali, S.M. 1966. <i>The Geography of the Puranas</i>, People’s Publishing House, Delhi. 9. Baker, A.R.H (ed.) 1972. <i>Progress in Historical Geography</i>, David and Charles. 10. Baker, A.R.H., Hamshere, J.D., Langton, J., 1972. <i>Geographical Interpretation of historical Sources</i>, David and Charles. 11. Bharadwaj, O.P., 1986. <i>Studies in the Historical Geography of Ancient India</i>, Sundeep Prakashan, Delhi. 12. Butin, Robin A., 1993. <i>Historical Geography: Through the Gates of Space and Time</i>, Edward Arnold, London. 13. Brian Fagan, <i>The Little Ice Age: How Climate Made History, 1300-1850</i>, Basic Books, 2000, ISBN: 978-0-465-02272-4 14. David R. Montgomery, <i>Dirt: The Erosion of Civilizations</i>, 2nd Ed., University of California Press, 2012, ISBN: 978-0-520-27290-3 15. Graham Brian, Nash Catherine, 2000. <i>Modern Historical Geographies</i>, Longman, Essex, England. 16. Guelke, L., 1982. <i>Historical Understanding in Geography: An idealist approach</i>, Cambridge University Press, Cambridge. 17. Law, B., 1968. <i>Historical Geography of Ancient India</i>, Societe Asiatique deiParis, Paris. 18. Pacione, M., 1987. <i>Historical Geography: Progress and Prospect</i>, Croom Helm, London. 19. Roberts, P.E., 1995. <i>Historical Geography of India</i>, Vol. I & II, Printwell, Jaipur.
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20. Sircar, D.C., 1971. *Studies in the Geography of Ancient and Medieval India*, Motilal banarasi Dass, India
21. Tamaskar, B.G., 1985. *Contributions to Historical Geography of India*, Inter-India Publications, New Delhi.
22. Baker, Alan R. H. “‘The Dead Don’t Answer Questionnaires’: Researching and Writing Historical Geography.” *Journal of Geography in Higher Education* 21.2 (1997): 231–243.
DOI: [10.1080/03098269708725427](https://doi.org/10.1080/03098269708725427)
23. Black, Iain S. “Analysing Historical and Archival Sources.” In *Key Methods in Geography*. 2d ed. Edited by Nicholas Clifford, Shaun French, and Gill Valentine, 466–484. London: SAGE, 2010.
24. Craggs, Ruth. “Historical and Archival Research.” In *Key Methods in Geography*. 3d ed. Edited by Nicholas Clifford, Meghan Cope, Thomas Gillespie, and Shaun French, 111–128. London: SAGE, 2016.
25. Alexendar Cunnigham (1871) *The Ancient Geography of India*, Trubnu & Company
26. Bimala Churna Lal (1954) *Historical Geography of India*, Societe Asiatique de Paris. Paris
27. Sircar (1960) *The Studies in the Geography of Ancient and Medieval India*, Motilal Banarsidas Publication House,
28. Bechan Dubey (1965) *Geographical Concepts in Ancient India*, Ph.D. thesis BHU, <http://hdl.handle.net/10603/340404>
29. S.M. Ali (1966) *The Geography of Puranas*, Peoples Publication House, New Delhi
30. Habeeb, I.: *An Atlas of the Mughal Empire*, Oxford University Press, Delhi, 1982.
31. Norton, W.: *Historical Analysis in Geography*. Longman, New York, 1984.
32. Schwartzberg, J.: *Historical Atlas of South Asia*, Chicago University Press, Chicago, 1980.

COs- POs Matrix

Pos/ Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	2
CO2	2	1	3	3	2	2	2	2	3	2	2
CO3	2	1	3	3	2	2	2	2	2	3	3
CO4	2	1	3	3	2	2	2	2	3	3	2
CO5	2	1	3	3	2	2	2	2	3	2	3
CO6	2	3	2	3	3	1	2	3	3	3	3

1.High, 2 Medium, 3 Low

School: SSHSS		Batch: 2024-2026	
Programme: M.A. Geography		Current Academic Year: 2025-2026	
Branch: Geography		Semester: II	
1	Course Code	MGP103	
2	Course Title	Research Methods and Statistical techniques in Spatial Analysis	
3	Credits	3	
4	Contact Hours (L-T-P)	1-0-4	
	Course Type	Core Course (CC)	
5	Course Objective	This course attempts to introduce the students to the basic knowledge related to geographical field research design. The course examines the questions related to data collection, methods, and its analysis. It also critically evaluates the dissertation based on field survey.	
6	Course Outcomes	<p>The student will be able to;</p> <p>CO1: learn the methods of data collection.</p> <p>CO2: apply relevant statistical techniques as per the selected topics.</p> <p>CO3: classify and select the locational analysis.</p> <p>CO4: apply network analysis.</p> <p>CO5: spatial statistical analysis and model simulation in the dissertation work.</p> <p>CO6: plan field work through practical experience and get skills of data collection methods and processing and analysis of obtained data.</p>	
7	Course Description	The course gives in depth understanding of the basic concepts of field research methods and research design in geography. The course especially arm students with all research methods to write dissertation based on field work on given topic.	
	Unit 1	Data Processing and Analysis:	CO Mapping
	A	<ul style="list-style-type: none"> Collection of data: methods, sources and types; Sampling procedures: random, stratified random, systematic and cluster;. 	CO2, CO5
	B	<ul style="list-style-type: none"> Classification and tabulation of data; 	CO1, CO2
	C	<ul style="list-style-type: none"> Data input in computer and analysis through Excel application and SPSS software 	CO1, CO2
	Unit 2	Statistical methods	
	A	<ul style="list-style-type: none"> The normal frequency distribution curve and its characteristics; Curve fitting; 	CO2, CO3

	B	<ul style="list-style-type: none"> • Test of significance: chi-square test, student's t-test, F-test, analysis of variance 	CO2, CO3
	C	Analysis of time series.	CO2, CO3
	Unit 3	Locational Analysis:	
	A	<ul style="list-style-type: none"> • Absolute and relative location: spacing, indices of randomness, deviation and nature of dispersion;. 	CO2, CO3
	B	<ul style="list-style-type: none"> • Nodes-population clusters: the size continuum, size and shape; Hierarchies: functional hierarchy of settlements and ordering; Interaction: movement and distance models; 	CO2, CO3
	C	<ul style="list-style-type: none"> • Service area and territory: serial polygons, interactions zones; Case of agricultural and industrial location 	CO2, CO3
	Unit 4	Network Analysis	
	A	<ul style="list-style-type: none"> • Topologic structures: branching, circuit and barrier networks; Geometric structures: networks shape and density, pattern and order; 	CO3, CO4
	B	<ul style="list-style-type: none"> • Matrix analysis: concept of connectivity, accessibility, symmetrical & asymmetrical matrix, diameter, powered matrix, path, matrix multiplication and addition; 	CO3, CO4
	C	<ul style="list-style-type: none"> • Derivation of connectivity matrix, second & third order connectivity matrix, accessibility matrix; Calculation of nodal degree, accessibility of a node, total possible paths. 	CO3, CO4
	Unit 5	Spatial statistical analysis	
	A	<ul style="list-style-type: none"> • binomial test, t-test, Mann-Whitney U test, Analysis of variance; Multivariate 	CO2, CO6
	B	<ul style="list-style-type: none"> • analysis; Gravity potential model; Trend surface analysis – 	CO6
	C	<ul style="list-style-type: none"> • simulation model, diffusion models 	CO5, CO6
	Mode of examination	Practical	
	Weightage Distribution	IA	EA
		25%	75%

Text Book/s	<ol style="list-style-type: none"> 1. Black, James A. and Champion, D.J. 1976. <i>Methods and Issues in Social Research</i>, John Wiley and Sons, New York. 2. Bonnett, Alastair, R. 2008. <i>What Is Geography?</i> Sage, London. 3. Creswell, J. W. 2009. <i>Research Design: Qualitative, Quantitative and Mixed Methods Approaches</i>, Sage, California, USA
Reference books	<ol style="list-style-type: none"> 4. Gopal, Krishan and Singh, Nina, 2016. <i>Researching Geography: The Indian Context</i>. Routledge, Delhi. 5. Harris, C. 2001. Archival Fieldwork, <i>Geographical Review</i>, 91 (1-2), 328-334 6. Hart, C. 1999. <i>Doing Literature Review: Releasing the Social Science Research Imagination</i>, Sage, London. 7. Hay. I. 2010. <i>Qualitative Research Methods in Human Geography</i>, 3rd ed. Oxford University Press, South Melbourne, Australia, 8. Lunsbury J.F. and Aldrich, F.T. 1979. <i>Introduction to Geographic Field Methods and Techniques</i>, Charles E. Merrill Publishing Company, Columbus. 9. Misra, R. P. 2015. <i>Research Methodology: A Handbook</i>, Concept Publishing Company, New Delhi. 10. Montello, Daniel R. and Sutton, P.C. 2006. <i>An Introduction to Scientific Research in Geography</i>, Sage Publications, London. 11. Oliver, Paul, 2004. <i>Writing Your Thesis</i>, Vistaar Publications, New Delhi 12. Preece, R. 1994. <i>Starting Research: An Introduction to Academic Research and Dissertation Writing</i>, Continuum, London. 13. Sharma, P.R., R. S. Yadava and Sharma, V.N. 2011. <i>Research Methodology: Concepts and Studies</i>, R. K. Books, New Delhi. 14. Stoddard, Robert H. 1982. <i>Field Techniques and Research Methods in Geography</i>, Kendall/Hunt for National Council for Geographic Education

COs- POs Matrix

Pos/ Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	2
CO2	2	1	3	3	2	2	2	2	3	2	2
CO3	2	1	3	3	2	2	2	2	2	3	3
CO4	2	1	3	3	2	2	2	2	3	3	2
CO5	2	1	3	3	2	2	2	2	3	2	3
CO6	2	3	2	3	3	1	2	3	3	3	3

1. **Low**
2. **Medium**
3. **High**

School: SSHSS		Batch: 2024-2026	
Programme: M.A. Geography		Current Academic Year: 2024-2025	
Branch: Geography		Semester: II	
1	Course Code	MGP105	
2	Course Title	Municipal Solid Waste Management	
3	Credits	1	
4	Contact Hours (L-T-P)	0-0-2	
	Course Type	Core Course (CC)	
5	Course Objective	Solid waste management is an essential part of every society, but it is also one of the most neglected ones. An in-depth understanding of the subject is required to tackle the current solid waste management crisis effectively. This course attempts to familiarize various steps involved in solid waste management.	
6	Course Outcomes	<p>The student will be able to.</p> <p>CO1: show and understand the meaning and importance of solid waste management historically.</p> <p>CO2: analyse main processes of waste handling.</p> <p>CO3: choose transporting waste from collection centres</p> <p>CO4: classify and compare the methods of landfill site selection.</p> <p>CO5: critically understand the social and economic factors of waste management.</p> <p>CO6: discuss and test the solid waste management of urban areas.</p>	
7	Course Description	The problems affiliated with solid waste management (SWM) in today's sprawling civilized and urbanized society are intricate because of the quantity and varied nature of wastes, the funding restriction for public disposal, interference of technology (energy and raw materials), and complex infrastructure development network in urban cities. As a result, if SWM is to achieve in consummate approach, the fundamentals aspects need to be identified.	
	Unit 1	Evolution, sources, Types, and Generation of Solid Waste	CO Mapping
	A	<ul style="list-style-type: none"> Introduction to solid waste, functional elements, , estimation of solid waste quantity 	CO2, CO5
	B	<ul style="list-style-type: none"> types and sources of solid waste, Sampling and characteristics 	CO1, CO2
	C	<ul style="list-style-type: none"> Factors affecting solid waste generation rate 	CO1, CO2

	Unit 2	Wate handling, storage, processing and types of collection of Solid waste	
	A	Handling Separation and storage at source;	CO2, CO3
	B	Processing at source	CO2, CO3
	C	Primary collection; Types of collection system	CO2, CO3
	Unit 3	Analysis of Solid waste collection system and types of Transfer station	
	A	Analysis of collection system (I)	CO2, CO3
	B	Analysis of collection system (II)	CO2, CO3
	C	Analysis of collection system (III), Need and Types of Transfer station	CO2, CO3
	Unit 4	Landfill	
	A	Site selection and types of landfill	CO3, CO4
	B	Leachate collection and treatment	CO3, CO4
	C	Designing and bio-mining of old dump sites	CO3, CO4
	Unit 5	Special waste and Integrated Solid waste management	
	A	construction and demolition waste	CO2, CO6
	B	Management of Bio-medical, e-waste and inert waste	CO6
	C	Municipal waste management rules Public private partnership and financing MSWM	CO5, CO6
	Mode of examination	Theory	
	Weightage Distribution	IA 25%	EA 75%
	Text Book/s	1. Banwari Lal and Reddy, M R V P (Eds.) (2005). Wealth from waste: trends and technologies. (2nd ed.). New Delhi: TERI. 2. Bilitewski, Bernd (1997). Waste management. Berlin: Springer-Verlag.	
	Reference books	3. Bonomo, Luca and Higginson, A.E. (Eds.) (1988). International overview on solid waste management: a report from the international solid wastes and public cleansing association. London: Academic Press. 628.44/.45 -INT 4. Chandra, Ram (Ed.) (2016). Environmental waste management. Boca Raton: CRC Press. 5. Cheremisinoff, Nicholas P. (2003). Handbook of solid waste management and waste minimization technologies. Oxford: Butterworth-Heinemann. 6. Curi, Kriton (Ed.) (1985). Appropriate waste management for developing countries. New York: Plenum press. 628.44/.49(063)	

		<p>7. Dawson, Gaynor W. and Mercer, Basil W. (1986). Hazardous waste management. New York: Wiley-Interscience.</p> <p>8. Dominguez, George S. and Bartlett, Kenneth G. (Eds.) (1986). Hazardous waste management. Florida: CRC Press. 628.44 -HAZ 112228 </p> <p>9. Eduljee, G. H. and Harrison, R. M. (2020). Electronic Waste Management (2nd ed.). London: RSC Publishing. 628.54:621.38 -ELE 177513 </p> <p>10. Fell, Robin, Phillips, Tony and Gerrard, Charles (Eds.) (1993). Geotechnical management of waste and contamination. Proceedings of the conference on Geotechnical management on waste and contamination held at Sydney from 22-23 March, 1993. Rotterdam: A. A. Balkema 628.5</p> <p>11. Geotechnical Engineering Program (1986). Geotechnical and geohydrological aspects of waste management. Proceedings of the 8th annual symposium on geotechnical and geohydrological aspects of waste management held in Fort Collins on 5-7 February 1986. Rotterdam: A.A. Balkema 624.13:628.16(063)</p> <p>12. Glustozzi, Filippo, Nizamuddin, Sabzoi (Eds.) (2022). Plastic waste for sustainable asphalt roads. Cambridge: Elsevier.</p> <p>13. Goel, Sudha (Ed.) (2017). Advances in solid and hazardous waste management. New Delhi: Capital Publishing. 628.4.032 -ADV 171020 CL</p> <p>14. Hagerty, D. Joseph, Pavoni, Joseph L. and Heer, John E. (1973). Solid waste management. New York: Van Nostrand. 628.44</p> <p>15. Hester R.E. and Harrison R.M. (Eds.) (2009). Electronic waste management: design, analysis and application. Cambridge: Royal Society of Chemistry.</p> <p>16. Jana, B. (Ed.) (2000). Waste recycling and resource management in the developing world: ecological engineering approach. Kalyani: University of Kalyani. 628.1/.6 -WAS</p> <p>17. Kalamdhad, Ajay S (Ed.) (2021). Integrated approaches towards solid waste management. New Delhi: Capital Publishing.</p>
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COs- POs Matrix

Pos/ Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	2
CO2	2	1	3	3	2	2	2	2	3	2	2
CO3	2	1	3	3	2	2	2	2	2	3	3
CO4	2	1	3	3	2	2	2	2	3	3	2
CO5	2	1	3	3	2	2	2	2	3	2	3
CO6	2	3	2	3	3	1	2	3	3	3	3

1. Low
2. Medium
3. High

School: SSHSS		Batch: 2024-2026	
Programme: M.A. Geography		Current Academic Year: 2024-2025	
Branch: Geography		Semester: II	
1	Course Code	MGP104	
2	Course Title	Geographical field training	
3	Credits	3	
4	Contact Hours (L-T-P)	1-0-4	
	Course Type	Core Course (CC)	
5	Course Objective	This course is intended to give students practical experience useful in designing and implementing a research project in geography. The principal area of expertise is physical geography, but the course will emphasize surveying, mapping, and sampling approaches that apply across intradisciplinary boundaries.	
6	Course Outcomes	The student will be able to; CO1: engage students in field training. CO2: get exposure to the unfamiliar topographical region. CO3: carry geographical instruments to practice on field. CO4: carry out research in different physical settings. CO5: prepare geography research report by creating evidence material and mapped. CO6: know the structured method of conducting physical geography enquiry	
7	Course Description	The course is structured to include instructional, and organizational time each week, along with several full days in the field. Fieldwork will be occasionally strenuous and will almost certainly take place regardless of inclement weather. Students should be prepared to work in rain, snow, ice, sleet, wind, cold, dense brush, viscous mud, and both flowing and standing water, although hopefully not all these hazards will be encountered at the same time. The students will travel to any area which has different terrain features.	
	Unit 1	Principles of field training:	CO Mapping
	A	<ul style="list-style-type: none"> Meaning and objectives; Field as laboratory of geography; 	CO2, CO5

	B	<ul style="list-style-type: none"> Contents of field training: physical, social, economic and cultural; 	CO1, CO2
	C	<ul style="list-style-type: none"> Field training techniques; Field training-based report writing 	CO1, CO2
	Unit 2	Field Visit	
	A	<ul style="list-style-type: none"> Students will undertake field training for 2 to 3 weeks duration in any region of India having geographical importance 	CO2, CO3
	B	<ul style="list-style-type: none"> Physical analysis of the location 	CO2, CO3
	C	<ul style="list-style-type: none"> Group wise presentation 	CO2, CO3
	Mode of examination	Practical	
	Weightage Distribution	IA 25%	EA 75%
	Readings	<p>1. Archer, J.E. and Dalton, T.H. (1968): <i>Field Work in Geography</i>. William Clowes and Sons Ltd. London and Beccles.</p> <p>2. Lousenbury, J. F. and Aldrich, F.T. (1986): <i>Introduction to Geographic Field Methods and Techniques</i>. Charles E. Merrill Publishing. Company, Columbus.</p>	
	Reference Book	<p>1. Bolton, T. and Newbury, P.A. (1968): <i>Geography through Fieldwork</i>. Blandford Press, London.</p> <p>2. Jones, P. A. (1968): <i>Field Work in Geography</i>. Longmans, Green and Company Ltd., London and Harlow.</p> <p>3. Pugh, J.C. (1975): <i>Surveying for Field Scientists</i>. Methuen and Company Ltd. London.</p> <p>4. Parsons, Tony and Knight, Peter G. (2005): <i>How to do your Dissertation in Geography and Related Disciplines</i>. Routledge, London. 2nd Ed.</p> <p>5. Kitchen, Rob and Tate, Nicholas J. (2009): <i>Conducting Research into Human Geography: Theory, Methodology & Practice</i>. Prentice Hall-Pearson, Harlow U.K. 2nd Ed.</p> <p>6. Kitchen, Rob and Fuller, Duncan (2005): <i>The Academic's Guide to Publishing</i>. Vistaar Publs. (Sage), New Delhi.</p> <p>7. Hay, Iain (ed.) (2005): <i>Qualitative Research Methods in Human Geography</i>. Oxford University Press, Melbourne. 2nd Ed.</p> <p>8. Hay, Iain (ed.) (2004): <i>Communicating in Geography and the Environmental Sciences</i>. Oxford University Press, Melbourne. 2nd Ed.</p>	

		9. Stoddard, Robert H. (1982): <i>Field Techniques and Research Methods in Geography</i> . Kendall/Hunt Pub. Dubuque IO.
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COs- POs Matrix

Pos/ Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	2
CO2	2	1	3	3	2	2	2	2	3	2	2
CO3	2	1	3	3	2	2	2	2	2	3	3
CO4	2	1	3	3	2	2	2	2	3	3	2
CO5	2	1	3	3	2	2	2	2	3	2	3
CO6	2	3	2	3	3	1	2	3	3	3	3

1. **Low**
2. **Medium**
3. **High**

SEMESTER III

School: SSHSS		Batch: 2024-2026	
Programme: M.A. Geography		Current Academic Year: 2025-2026	
Branch: Geography		Semester: III	
1	Course Code	MGO201	
2	Course Title	New Economic Geography	
3	Credits	4	
4	Contact Hours (L-T-P)	4-0-0	
	Course Type	Core Course (CC)	
5	Course Objective	The course significantly frame economic aspects of social, cultural and political factors as central to the functioning of economies; and that the economic processes needs to be analysed in social, cultural and political contexts	
6	Course Outcomes	The student will be able to; CO1: understand the concept of new economic geography. CO2: compare and explain stages of growth in economic systems. CO3: analyse the importance of information in spatial economics. CO4: imagine and elaborate in catalytic relationship between the urbanisation and economic. CO5: further link the local and global economy. CO6: theorise the new economic approaches in analysing global aspects.	
7	Course Description	The course New economic geography provides an integrated and micro-founded approach to spatial economics. It emphasizes the role of clustering forces in generating an uneven distribution of economic activity and income across space. The approach has been applied to the economics of cities, the emergence of regional disparities, and the origins of international inequalities.	
	Unit 1	Introduction to Spatial Economics and concept of New economics	CO Mapping
	A	<ul style="list-style-type: none"> The re-discovery. 	CO2, CO5
	B	<ul style="list-style-type: none"> Issues in spatial economic systems; 	CO1, CO2
	C	<ul style="list-style-type: none"> Economic-geographic links 	CO1, CO2
	Unit 2	Stages of Growth	
	A	<ul style="list-style-type: none"> Evolution of Economic Systems and Sectors 	CO2, CO3
	B	<ul style="list-style-type: none"> Stages of economic growth; evolution of economic systems; 	CO2, CO3

	C	<ul style="list-style-type: none"> • Three-sector hypothesis and post-industrial society; informal economy and social accounting 	CO2, CO3
	Unit 3	Information and Knowledge Economies in Spatial Systems:	
	A	<ul style="list-style-type: none"> • Information revolution, economies of human attention 	CO2, CO3
	B	<ul style="list-style-type: none"> • Knowledge economies and imagination age; 	CO2, CO3
	C	<ul style="list-style-type: none"> • Creative industries and cultural economies, recreating economic spaces 	CO2, CO3
	Unit 4	Economies of Urban Systems:	
	A	<ul style="list-style-type: none"> • FIRE & ICE economies and global cities 	CO3, CO4
	B	<ul style="list-style-type: none"> • City re-imagining, city branding and place marketing 	CO3, CO4
	C	<ul style="list-style-type: none"> • Place-making and place-led development 	CO3, CO4
	Unit 5	Space-Economy of International Systems:	
	A	<ul style="list-style-type: none"> • Economic groupings; economic gravitations, 	CO2, CO6
	B	<ul style="list-style-type: none"> • Economic cooperation and integration, 	CO6
	C	<ul style="list-style-type: none"> • Sustainable development goals (Goal 17: global partnership for sustainable development) 	CO5, CO6
	Mode of examination	Theory	
	Weightage Distribution	IA	EA
		25%	75%
	Text book/s	1. Anderson William P. 2012. <i>Economic Geography</i> , Routledge, London. 2. Coe N. M., Kelly P. F. and Yeung H. W. C. 2007. <i>Economic Geography: A Contemporary Introduction</i> , Blackwell, Oxford.	
	Reference Books	1. Dicken P. 1990. <i>Global Shift: Mapping the Changing Contours of the World Economy</i> , Harper Collins Publishers, New York. 2. Fujita Masahisa, Krugman Paul and Venables Anthony, 2001. <i>The Spatial Economy: Cities, Regions and International Trade</i> , The MIT Press. 3. Grossman G. 1984. <i>Economic Systems</i> , Prentice Hall, New Jersey. 4. Hanink D. M. 1997. <i>Principles and Applications of Economic Geography</i> , John Wiley, New York.	

		<p>5. Jovanovich M. 1998. <i>International Economic Integration: Limits and Prospects</i>, Routledge.</p> <p>6. Knox Paul, Agnew John, McCarthy Linda, 2008. <i>The Geography of the World Economy</i>, OUP, USA.</p> <p>7. Lee R. and Wills J. (eds.), 1997. <i>Geography of Economics</i>, Arnold, New York.</p> <p>8. Machlup Fritz, 1977. <i>A History of Thought on Economic Integration</i>, Columbia University Press, New York.</p> <p>9. MacKinnon D. and Cumbers A. 2007. <i>An Introduction to Economic Geography: Globalization, Uneven Development and Place</i>, Pearson/Prentice Hall, Harlow.</p> <p>10. Murray Warwick E. 2006. <i>Geographies of Globalization</i>. Routledge.</p> <p>11. Prager Jean-Claus and Thisse Jacques-Francois, 2012. <i>Economic Geography and the Unequal Development of Regions</i>, Routledge, London.</p> <p>12. Sachar A. and Oberg S. (eds.) 1990. <i>The World Economy and the Spatial Organisation of Power</i>, E.S.F. Publication, Strasbourg.</p> <p>13. Sassen Saskia, 2012. <i>Cities in a World Economy</i>, Sage.</p> <p>14. Sheppard E. and Barnes T. J. 1984. <i>The Capitalist Space Economy: Geographical Analysis after Ricardo Marx and Strafa</i>, Unwin Hyman, London</p>
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COs- POs Matrix

Pos/ Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	2
CO2	2	1	3	3	2	2	2	2	3	2	2
CO3	2	1	3	3	2	2	2	2	2	3	3
CO4	2	1	3	3	2	2	2	2	3	3	2
CO5	2	1	3	3	2	2	2	2	3	2	3
CO6	2	3	2	3	3	1	2	3	3	3	3

1. **Low**
2. **Medium**
3. **High**

School: SSHSS		Batch: 2024-2026	
Programme: M.A. Geography		Current Academic Year: 2025-2026	
Branch: Geography		Semester: III	
1	Course Code	MGO204	
2	Course Title	Geography of Health and Well Being	
3	Credits	4	
4	Contact Hours (L-T-P)	3-1-0	
	Course Type	Core Course (CC)	
5	Course Objective	The aim of this course is to outline current theoretical and practice-based issues in the area of health and to understand the developing role geographers play in these areas	
6	Course Outcomes	<p>The student will be able to;</p> <p>CO1: show the importance of spatial medical and health aspects.</p> <p>CO2: demonstrate health research.</p> <p>CO3: experiment with the geographical aspect of the diffusion of disease.</p> <p>CO4: examine the sociocultural determinants of health in context.</p> <p>CO5: Explain the challenges health care provision and health care planning in India</p> <p>CO6: design and critically visualize health dynamics.</p>	
7	Course Description	The course will focus on major themes in the geography of health and health care. It will introduce students to reading health research critically, and the changing concepts of health in the world and Indian context. It will also explain and illustrate through case studies and examples, the geographical aspects chronic and mental health, health inequalities, health care provision and planning. Emphasis will be placed on the health of Indians and neighbouring countries.	
	Unit 1	Introduction/ Reading Health Research Critically	CO Mapping
	A	<ul style="list-style-type: none"> Nature, Scope and Recent Trends in Medical Geography. Contemporary Concepts in Medical/ health Geography, 	CO2, CO5
	B	<ul style="list-style-type: none"> Approaches and Theories – Biomedical Disease Model 	CO1, CO2
	C	<ul style="list-style-type: none"> Human Ecology of disease, Medical Geography and Epidemiology. 	CO1, CO2
	Unit 2	Environments and Health Care Studies	
	A	<ul style="list-style-type: none"> W.H.O. Classification of Diseases; 	CO2, CO3

	B	<ul style="list-style-type: none"> Environmental Medicine (Water, Soil, Climate and Health) ; 	CO2, CO3
	C	<ul style="list-style-type: none"> Medical Pluralism in developing countries with reference of India. 	CO2, CO3
	Unit 3	Globalization and Health	
	A	<ul style="list-style-type: none"> Climatic factors and global health 	CO2, CO3
	B	<ul style="list-style-type: none"> Air pollution and health GIS Lab 3 Buffers and spatial estimation of exposure 	CO2, CO3
	C	<ul style="list-style-type: none"> Modelling disease diffusion: Human health and mobility; Spatial patterns of disease diffusion 	CO2, CO3
	Unit 4	Geography of Chronic Diseases	
	A	<ul style="list-style-type: none"> Determinants of the Health of Populations 	CO3, CO4
	B	<ul style="list-style-type: none"> Distribution Patterns of Disease Geographical Patterns of Major diseases with special reference to India; Malaria, Cholera, Tuberculosis, AIDS 	CO3, CO4
	C	<ul style="list-style-type: none"> Human health behavior; Spatial disparity of health 	CO3, CO4
	Unit 5	Health Care System and Planning	
	A	<ul style="list-style-type: none"> Geography of Nutrition with special reference to India; 	CO2, CO6
	B	<ul style="list-style-type: none"> Health Services System in Developed and Developing Countries-U.S.A. and India 	CO6
	C	<ul style="list-style-type: none"> Issues of critical health planning 	CO5, CO6
	Mode of examination	Theory	
	Weightage Distribution	IA	EA
		25%	75%
	Text books	<ol style="list-style-type: none"> Akhtar, R. and Learmonth, A.T. (1986) : Geographical Aspects of Health and Disease in India, Concept Publishers, New Delhi. Mc-Glashan, N.D.(1972) : Medical Geography, Techniques and Field Studies, Methuen, London. 	

	Reference books	<ol style="list-style-type: none"> 3. Pacione, M. (1986) : Medical Geography : Progress and Prospects; Edited, Croam, Helm London. 4. Pyle, G.P.(1971) : Applied Medical Geography, Washington, D.C.V.H. Winnston and Sons. 5. Akhtar, R.(1982) : The Geography of Health: An Essay and Bibliography, Marwah, New Delhi. 6. Shannon, G.W. and Dever, G.E.A.(1973) : Health Care Delivery, Special Perspectives, New York. 7. Emch, M., Root, E. D., & Carrel, M. (2017). Health and medical geography (4th ed.). New York, NY: The Guilford Press. **Free online access to Health and medical geography in the UF Library. 8. Optional textbook: Gatrell, A. C. and Elliott, S. J. (2014). Geographies of Health: An Introduction (3rd ed.). John Wiley & Sons.
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COs- POs Matrix

Pos/ Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	2
CO2	2	1	3	3	2	2	2	2	3	2	2
CO3	2	1	3	3	2	2	2	2	2	3	3
CO4	2	1	3	3	2	2	2	2	3	3	2
CO5	2	1	3	3	2	2	2	2	3	2	3
CO6	2	3	2	3	3	1	2	3	3	3	3

1. Low
2. Medium
3. High

School: SSHSS		Batch: 2024-2026	
Programme: M.A. Geography		Current Academic Year: 2025-2026	
Branch: Geography		Semester: III	
1	Course Code	MGO202	
2	Course Title	Geographies of Migration	
3	Credits	4	
4	Contact Hours (L-T-P)	3-1-0	
	Course Type	Core Course (CC)	
5	Course Objective	Migration is one of the key challenges of our times and it influences political and social life in a range of structural ways. This course provides a lively and engaging overview of this lively field of geography, informed by the impressive range of geographical scholarships on the issue. The course will equip students with the conceptual skills and factual knowledge to understand migration trends and debates, and to form and express your own views on migration and related topics.	
6	Course Outcomes	<p>The student will be able to;</p> <p>CO1: define migration which provides the theoretical building blocks you need to think clearly and critically about migration.</p> <p>CO2: explain the ‘Perspectives’, which showcases different ways of looking at migration.</p> <p>CO3: apply challenges at a range of real-world issues that arise from migration and its governance.</p> <p>CO4: examine the reasons of migration.</p> <p>CO5: judge the internal migration patterns.</p> <p>CO6: construct the migration theories and current course of migration studies in the discipline.</p>	
7	Course Description	This course endeavours to encourage the understanding of issues and challenges of human migration from spatial perspectives. Different forms of human migration, its characteristics and regional patterns shall be highlighted. Place of migration issues in the 2030 SDG agenda is also evaluated	
	Unit 1	Migration Overview	CO Mapping
	A	<ul style="list-style-type: none"> basic concepts, data source, measures, and historical perspectives 	CO2, CO5
	B	<ul style="list-style-type: none"> scope and significance 	CO1, CO2
	C	<ul style="list-style-type: none"> Determinants of migration. 	CO1, CO2
	Unit 2	Theories and Models of Migration	
	A	<ul style="list-style-type: none"> Studies on migration 	CO2, CO3

	B	<ul style="list-style-type: none"> E. G. Ravenstein, J.Q. Stewart, G.K. Zipf, S. A.Stouffer, E.S. Lee, T. Hagerstrand and W. Zelinsky 	CO2, CO3
	C	<ul style="list-style-type: none"> Comparative analysis of theoretical and practical understanding of migration 	CO2, CO3
	Unit 3	Perspectives	
	A	<ul style="list-style-type: none"> Historical Geographies of Migration 	CO2, CO3
	B	<ul style="list-style-type: none"> Migrants as Rational Actors, Experiences of Migration 	CO2, CO3
	C	<ul style="list-style-type: none"> Concepts Nationalism, Geopolitics Hospitality, Integration in geographies of migration 	CO2, CO3
	Unit 4	Mobility Identity, Violence Representing Migration	
	A	<ul style="list-style-type: none"> Migration and Climate Change 	CO3, CO4
	B	<ul style="list-style-type: none"> Migration and Surveillance 	CO3, CO4
	C	<ul style="list-style-type: none"> Migration and Exploitation 	CO3, CO4
	Unit 5	Internal Migration	
	A	<ul style="list-style-type: none"> concepts, characteristics, typologies, 	CO2, CO6
	B	<ul style="list-style-type: none"> regional patterns, explanations, and implications 	CO6
	C	<ul style="list-style-type: none"> migration and development 	CO5, CO6
	Mode of examination	Theory	
	Weightage Distribution	IA	EA
		25%	75%
	Text Book/s	<ol style="list-style-type: none"> Brettell, C. B., and Hollifield, J.F. (eds.) 2014. <i>Migration Theory: Talking across Disciplines</i>, 3d ed. New York: Routledge. Castles, S., de Haas, H. and Miller, M.J. 2014. <i>The Age of Migration: International Population Movements in the Modern World</i>, 5th ed. New York and London: Guilford. 	
	Reference Books	<ol style="list-style-type: none"> Hatton, T., and Williamson, J.G. 1998. <i>The age of mass migration: causes and economic impact</i>, New York: Oxford University Press. Kosinsk, L.A., Elahi, K.M. (eds.) 1985. <i>Population redistribution and development in South Asia</i>, Boston: Kluwer Academic Publishers Group. Li, W., Skop, E., Morken, A. 2017. <i>Geography of Migration</i>, London: Oxford University Press. Mavroudi, E. and Nagel, C. 2016. <i>Global migration: patterns, processes, and politics</i>, New York, NY: Routledge. 	

		<p>7. Mishra, D.K. (eds.) 2016. <i>Internal migration in contemporary India</i>, New Delhi: Sage.</p> <p>8. Naerssen, T.V., Spaan, E., and Zoomers, A. 2008. <i>Global migration and development</i>, New York: Routledge.</p> <p>9. Piguet, E., and Laczko F. (eds.) 2014. <i>People on the move in a changing climate: the regional impact of environmental change on migration</i>, New York: Springer.</p> <p>10. Rajan, S.I., and Bhagat R.B. (eds.) 2018. <i>Climate change, vulnerability and migration</i>, London: Routledge.</p> <p>11. Rajan, S.I., and Percot, M. (eds.) 2012. <i>Dynamics of Indian migration: historical and current perspectives</i>, London: Routledge.</p> <p>12. United Nations Development Programme (UNDP) 2009. <i>Human Development Report 2009: Overcoming barriers- human mobility and development</i>, New York: Palgrave MacMillan.</p>
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COs- POs Matrix

Pos/ Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	2
CO2	2	1	3	3	2	2	2	2	3	2	2
CO3	2	1	3	3	2	2	2	2	2	3	3
CO4	2	1	3	3	2	2	2	2	3	3	2
CO5	2	1	3	3	2	2	2	2	3	2	3
CO6	2	3	2	3	3	1	2	3	3	3	3

- 1. Low
- 2. Medium
- 3. High

School: SHSS		Batch: 2024-2026
Program: M.A Geography		Current Academic Year: 2025-2026
Branch: Geography		Semester: III
1	Course Code	MGO203
2	Course Title	Socio-Cultural Geography
3	Credits	4
4	Contact Hours (L-T-P)	4-0-0
5	Course Type	Core Elective
6	Course Objective	The objective of this course is to lead students to understand the cultural geography concept and associate with differences in spatial cultural identities.
7	Course Outcomes	<p>Students will be able to;</p> <p>CO1: List the basic concepts of Socio-cultural geography and contribution by different school of thoughts of Geography.</p> <p>CO2: extend basic idea of evolution of culture in different parts of the world.</p> <p>CO3: Construct the issues leading to specific behaviour and societal norms.</p> <p>CO4: Examine association of food and folk culture of Indian culture concept.</p> <p>CO5: Perceive Region formation and role of social groups in Indian unity and diversity.</p> <p>CO6: Propose new ideas and theories of spatial social construction.</p>
8	Course Description	The course will introduce students to the basic concepts of cultural geography. Students will be able to associate with the cultural genesis and differences of major cultural realms of the world and also of India.
Syllabus Outline		CO Mapping
Unit 1		Concept of Culture, Cultural Complexes
A	<ul style="list-style-type: none"> Meaning, concepts, scope and approaches cultural geography. Culture and society, civilization, cultural hearth, culture area, core, domain, sphere 	
B	<ul style="list-style-type: none"> Contribution of social geography to social theory; power relations and space. Culture identity and conflict, concept of ethno-plight and acculturation 	CO1

C	<ul style="list-style-type: none"> • Geography of Socio-cultural aspects and major contributions by German, French, British and American. 	CO1
Unit 2	Evolution of Culture	CO1
A	<ul style="list-style-type: none"> • Evolution of early human groups, beginnings of civilizations; 	CO1, CO2
B	<ul style="list-style-type: none"> • Cultural regions: world regions, vernacular regions; Cultural landscapes: development and adaptation; 	CO1, CO2
C	<ul style="list-style-type: none"> • Cultural globalization; Cultural turn 	CO1, CO2
Unit 3	Social and Cultural Geographical Issues	
A	<ul style="list-style-type: none"> • Contribution of social geography to social theory; power relations and space. Culture identity and conflict, concept of ethno-plight and acculturation 	CO2, CO3
B	<ul style="list-style-type: none"> • Behaviour pattern and heritage (Oriental and Occidental) Culture norms, identity and nationalism 	CO2, CO3
C	<ul style="list-style-type: none"> • Understanding society and its structure and process; geographical bases of social formations; 	CO2, CO3
Unit 4	Indian Socio-Cultural geography	
A	<ul style="list-style-type: none"> • Social differentiation and region formation; evolution of socio-cultural regions of India; bases of social region formation; role of race, caste, ethnicity; religion and languages; Indian unity and diversity; social transformation and change in India. 	CO2, CO3. CO4
B	<ul style="list-style-type: none"> • Folk-culture and Tribal societies 	CO3, CO4
C	<ul style="list-style-type: none"> • Geographies of food and ethnic wear 	CO3, CO4
Mode of examination	Theory	
Weightage Distribution	IA	EA
Readings Text book/s	1. Crutcher, Michael E. 2010. <i>Tremé: Race and Place in a New Orleans Neighborhood</i> . Athens, GA: University of Georgia Press 2. Aizajuddin Ahmad (2002), <i>Social Geography</i> , Rawat Publication, Jaipur	



Reference books	<ol style="list-style-type: none">2. Barber, C.L. 1965. <i>The Story of Language</i>. London: The English Language Book Society and Pan Books Ltd.3. Bhardwaj, S.M. 1973. <i>Hindu Places of Pilgrimage in India</i>. Berkeley: University of California Press.4. Blunt, A., Gruffudd, P., May, J. and Ogborn, M. 2003: <i>Cultural geography in practice</i>. London: Arnold.5. Crang, M. 1998: <i>Cultural Geography</i>. London: Routledge.6. Kosambi, D.D. 1972. <i>The Culture and Civilization of Ancient India in Historical Outline</i>. New Delhi: Vikas Publications.7. Maloney, C. 1974. <i>People of South Asia</i>. New York: Winston Norton.8. Norton, W. 2006. <i>Cultural Geography. Environments. Landscapes. Identities. Inequalities</i> (2nded.). Toronto: Oxford University Press.9. Parekh, B. 2000: <i>Multiculturalism: Cultural Diversity and Political Theory</i>. London: Macmillan Press.10. Singh, Rana P.B. 2004. <i>Cultural Landscapes and the Lifeworld: Literary Images of Banaras</i>. Varanasi: Indica Books.11. Sopher, David E., ed. 1980. <i>An Exploration of India: Geographical Perspectives on Society and Culture</i>. Ithaca, New York: Cornell University Press.12. Stump, Roger W. 2008. <i>The Geography of Religion: Faith, Place, and Space</i>. Lanham (USA): Rowman & Littlefield Publishers.13. Subbarao, B. 1958. <i>Personality of India: Pre- and Proto- Historic Foundation of India and Pakistan</i>. 2ndedition. M.S. University Baroda, Vadodara.14. Wagner, P. and M. Mikesell, eds, 1962. <i>Readings in Cultural Geography</i>. Chicago: The University of Chicago15. Weber, Max. 1965. <i>The Sociology of Religion</i>. London: Methuen & Co.16. Appadurai, A. 1996: <i>Modernity At Large: Cultural Dimensions Of Globalization</i>. Minneapolis: University of Minnesota Press.
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School: SSHSS		Batch: 2024-2026	
Programme: M.A. Geography		Current Academic Year: 2025-2026	
Branch: Geography		Semester III	
1	Course Code	MGP202	
2	Course Title	Village Survey: Instrumental and Socio-economic	
3	Credits	3	
4	Contact Hours (L-T-P)	1-0-2	
	Course Type	Core Course (CC)	
5	Course Objective	The course is designed to acquaint the student with the importance of field work as one of the methodologies in Geography. The students are to be sensitized about pre-field work preparations, conduct of the field work, post-field work based and the writing of a field work report.	
	Course outcome	Students will be able to; CO1: show the basic idea of village study. CO2: explain how to hold the census record of the entire village. CO3: Construct the issues of village survey. CO4: Examine various factors of village settlement. CO5: measure and map the physical aspects of village with instruments. CO6: combine instrumental survey with social survey in a report form.	
7	Course Description	The project report will involve statement of objectives and scope of field investigation; methods of field work for studies of different scales (macro, meso, and micro); preparation of a questionnaire; sampling techniques, collection, processing, representation, analysis and interpretation of data/information. The candidates are required to write a project report on small assigned problem involving field investigations	
	Unit 1	Instrumental Survey:	CO Mapping
	A	<ul style="list-style-type: none"> Surveying with the help of theodolite and levelling by dumpy level; 	CO2, CO5
	B	<ul style="list-style-type: none"> Use of GPS and total stations for collection of data and mapping. 	CO1, CO2
	Unit 2	Household Survey:	

	A	<ul style="list-style-type: none"> • Making interview schedule; Conducting household survey and report writing, 	CO2, CO3
	B	<ul style="list-style-type: none"> • Resource mapping; Infrastructure mapping; Social mapping 	CO2, CO3
	Unit 3	Report presentation	
	A	<ul style="list-style-type: none"> • Two reports will be prepared groupwise by students 	CO2, CO3
	B	<ul style="list-style-type: none"> • Instrumental survey 	CO2, CO3
	C	<ul style="list-style-type: none"> • Household survey 	CO2, CO3
	Mode of examination	Practical	
	Weightage Distribution	IA	EA
		25%	75%
	Readings Text book/s*	<p>1. Archer, J.E. and Dalton, T.H. (1968): <i>Field Work in Geography</i>. William Clowes and Sons Ltd., London and Beccles.</p> <p>2. Bolton, T. and Newbury, P.A. (1968): <i>Geography through Fieldwork</i>. Blandford Press, London.</p>	
	Reference Book	<p>3. Jones, P. A. (1968): <i>Field Work in Geography</i>. Longmans, Green and Company Ltd., London and Harlow.</p> <p>4. Lousenbury, J. F. and Aldrich, F.T. (1986): <i>Introduction to Geographic Field Methods and Techniques</i>. Charles E. Merrill Publishing Company, Columbus.</p> <p>5. Pugh, J.C. (1975): <i>Surveying for Field Scientists</i>. Methuen and Company Ltd., London.</p> <p>6. Knight, Peter G. and Parsons, Tony (2003): <i>How to do your Essays Exams & Coursework in Geography and Related Disciplines</i>. Nelson Thornes, Cheltenham, U.K.</p> <p>7. Parsons, Tony and Knight, Peter G. (2005): <i>How to do your Dissertation in Geography and Related Disciplines</i>. 2nd ed., Routledge, London.</p> <p>8. Kitchen, Rob and Tate, Nicholas J. (2009): <i>Conducting Research into Human Geography: Theory, Methodology & Practice</i>. 2nd ed., Prentice Hall-Pearson, Harlow, U.K.</p> <p>9. Kitchen, Rob and Fuller, Duncan (2005): <i>The Academic's Guide to Publishing</i>. Vistaar Publications (Sage), New Delhi.</p> <p>10. Stoddard, Robert H. (1982): <i>Field Techniques and Research Methods in Geography</i>. Kendall/Hunt Publication, Dubuque, Iowa, U.S.A.</p>	

COs- POs Matrix

Pos/ Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	2
CO2	2	1	3	3	2	2	2	2	3	2	2
CO3	2	1	3	3	2	2	2	2	2	3	3
CO4	2	1	3	3	2	2	2	2	3	3	2
CO5	2	1	3	3	2	2	2	2	3	2	3
CO6	2	3	2	3	3	1	2	3	3	3	3

- 1. Low**
- 2. Medium**
- 3. High**

School: SSHSS		Batch: 2024-2026	
Programme: M.A. Geography		Current Academic Year: 2025-2026	
Branch: Geography		Semester III	
1	Course Code	MGP201	
2	Course Title	Digital image processing and Terrain modelling	
3	Credits	3	
4	Contact Hours (L-T-P)	1-0-4	
	Course Type	Core Course (CC)	
5	Course Objective	The course aims to develop an understanding of terrain extraction principles, modelling and potential applications. This will also enable students to efficiently deal problems in physical geography and environmental issues.	
6	Course Outcomes	<p>The student will be able to;</p> <p>CO1: define Digital Terrain Modelling</p> <p>CO2: demonstrate digital terrain and surface model generation tools.</p> <p>CO3: organize Primary and Secondary topographic Attributes and applications.</p> <p>CO4: infer Digital Image processing and image enhancement techniques for better interpretation.</p> <p>CO5: determine multi-resolution data fusion and visualization</p> <p>CO6: elaborate Image Classification and Change detection techniques</p>	
7	Course Description	The course will give broad understanding of Digital Terrain Modelling and digital terrain and surface model generation tools. The course also delves upon Primary and Secondary topographic Attributes and applications digital image processing and data fusion.	
	Unit 1	Digital image,	CO Mapping
	A	<ul style="list-style-type: none"> Digital image, supply and storage of digital data 	CO2, CO5
	B	<ul style="list-style-type: none"> radiometric and geometric correction 	CO1, CO2
	C	<ul style="list-style-type: none"> image registration 	CO1, CO2
	Unit 2	Colour Composite	
	A	<ul style="list-style-type: none"> Colour Composite, image enhancement, filtering, 	CO2, CO3
	B	<ul style="list-style-type: none"> transformation, indices, 	CO2, CO3
	C	<ul style="list-style-type: none"> Colour enhancement, image fusion, perspective visualization 	CO2, CO3
	Unit 3	Digital image classification:	
	A	<ul style="list-style-type: none"> supervised and unsupervised classification; 	CO2, CO3
	B	<ul style="list-style-type: none"> accuracy assessment 	CO2, CO3

	C	<ul style="list-style-type: none"> Digital change detection 	CO2, CO3
	Unit 4	Digital Terrain Modelling:	
	A	<ul style="list-style-type: none"> principles and applications, data sources, scale and quality assessment. 	CO3, CO4
	B	<ul style="list-style-type: none"> Principles of Photogrammetry, Radargrammetry, LiDAR and GPS-based altitude determination. 	CO3, CO4
	C	<ul style="list-style-type: none"> DTM vs. DSM, Contour/Point interpolation: IDW, Spline, Krigging etc.; 3D Visualization 	CO3, CO4
	Unit 5	Terrain Analysis	
	A	<ul style="list-style-type: none"> Terrain analysis on Gridded DEM: slope, aspect, curvature, flow direction, watershed delineation etc. 	CO2, CO6
	B	<ul style="list-style-type: none"> Terrain Classification; 	CO6
	C	<ul style="list-style-type: none"> Secondary topography Attributes – wetness indices, stream-power indices, radiation indices, temperature indices etc. 	CO5, CO6
	Mode of examination	Practical	
	Weightage Distribution	IA	EA
		25%	75%
	Text Book/s	<p>1. De Mers, M.N. 2008. <i>Fundamentals of Geographic Information Systems</i>, 4th Edition, John Wiley & Sons, NewYork.</p> <p>2. El-Sheimy, N., Valeo, C. and Habib, A. 2005. <i>Digital Terrain Modeling: Acquisition, Manipulation and Applications</i>, Artech House.</p>	
	Reference Books	<p>3. Florinsky, I.V. 2012. <i>Digital Terrain Analysis in Soil Science and Geology</i>, Academic Press, Elsevier.</p> <p>4. Jensen, J.R. 2007. <i>Remote Sensing of the Environment: An Earth Resource Perspective</i>, 2nd Edition, Pearson.</p> <p>5. Jensen, J.R. 2015. <i>Introductory Digital Image Processing: A Remote Sensing Perspective</i>, 4th Edition, Pearson.</p> <p>6. Li, Z., Zhu, C. and Gold, C. 2004. <i>Digital Terrain Modeling: Principles and Methodology</i>, CRC Press</p> <p>7. Peckham, R.J. and Jordan, G. (eds.), 2007. <i>Digital Terrain Modelling: Development and Applications in a Policy Support Environment</i>, Springer.</p> <p>8. Wilson, J.P. and Gallant, J.C. (eds.), 2000. <i>Terrain Analysis: Principles and Applications</i>, John Wiley & Sons.</p> <p>9. Wilson, J.P. 2018. <i>Environmental Applications of Digital Terrain Modeling</i>, Wiley-Blackwell.</p> <p>10. Zhou, Q., Lee, B. and Tang, G. (eds.), 2008. <i>Advances in Digital Terrain Analysis</i>, Springer</p>	

COs- POs Matrix

Pos/ Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	2
CO2	2	1	3	3	2	2	2	2	3	2	2
CO3	2	1	3	3	2	2	2	2	2	3	3
CO4	2	1	3	3	2	2	2	2	3	3	2
CO5	2	1	3	3	2	2	2	2	3	2	3
CO6	2	3	2	3	3	1	2	3	3	3	3

1. **Low**
2. **Medium**
3. **High**

SEMESTER IV

School: SSHSS		Batch: 2024-2026	
Programme: M.A. Geography		Current Academic Year: 2025-2026	
Branch: Geography		Semester IV	
1	Course Code	MGO207	
2	Course Title	Watershed management	
3	Credits	4	
4	Contact Hours (L-T-P)	3-1-0	
	Course Type	Core Course (CC)	
5	Course Objective	The course aims to introduce students in the watershed management due to criticality of the water management. The course also evaluates the structure of Watershed and function structure of watershed.	
6	Course Outcomes	<p>The student will be able to;</p> <p>CO1. Define concept, components, characteristics of watershed management</p> <p>CO2 classify the morphological and climatic characteristics of Watershed</p> <p>CO3 identify the land capability classification and soil resources evaluation.</p> <p>CO4 compare the plan and approaches of integrated watershed management.</p> <p>CO5 evaluate Integrated watershed management programmes.</p> <p>CO6: propose the impetus of watershed management in current times.</p>	
7	Course Description	The course is conceptualised to provide competency in understanding the impact of land use changes on various hydrological cycle parameters and soil erosion and choosing suitable soil and water conservation techniques to control it. It tries to touch upon divergent disciplines relevant to this complex topic. The course is designed as an elective to help capacity building of the candidates to undertake research work or professional assignment in the sub-fields of watershed management, which plays a key role in sustainable development.	
	Unit 1	Introduction to Watershed management	CO Mapping
	A	Philosophy and Concept of Watershed management	CO2, CO5
	B	Components of watershed: land, water and vegetation	CO1, CO2
	C	Physical and Socio-Economic characteristics of watershed	CO1, CO2
	Unit 2	Function and Structure of Watershed	
	A	Watershed Delineation and codification.	CO2, CO3

	B	Morphological Characteristic of Watershed	CO2, CO3
	C	Climatic characteristics of Watershed	CO2, CO3
	Unit 3	Watershed Analysis:	
	A	Land capability classification of watershed	CO2, CO3
	B	Soil resource evaluation, slope analysis and vegetation cover	CO2, CO3
	C	Groundwater Hydrology: Divisions of subsurface water, formations according to their water-bearing properties, types of aquifer and aquifer properties, Darcy's law and elementary groundwater flow equation, geological formations as aquifers, groundwater monitoring, groundwater resource estimation.	CO2, CO3
	Unit 4	Objectives of IWM	
	A	Land and Water conservation practices	CO3, CO4
	B	Importance of land use planning in watershed development	CO3, CO4
	C	Water harvesting and afforestation, population and livestock development	CO3, CO4
	Unit 5	Development and Management of Watershed	
	A	Participatory Rural Appraisal in Watershed Programme: basic principle, fundamentals and Different Tools Employed in PRA	CO2, CO6
	B	Empowerment of Women and other gender issues Equity, property rights, and biophysical characteristics in Watershed management	CO6
	C	Water Resource Planning, Management and Policy: Water resources management (demand and supply side), watershed management, water harvesting, national water policy	CO5, CO6
	Mode of examination	Theory	
	Weightage Distribution	IA	EA
		25%	75%
	Readings Text book/s*	1. Murty, J.V.S., 1994. Watershed Management in India, Wiley Eastern Ltd, New Delhi.	

	Reference Book	<p>1. Elango, L., Jayakumar, R., 2001. Modeling in Hydrology, UNESCO, and New Delhi.</p> <p>2. Rajesh Rajora, 2002. Integrated Watershed Management, R. Rawat Publications, New Delhi.</p> <p>Web sources-</p> <ol style="list-style-type: none">1. https://www.yourarticlelibrary.com/watershed-management/watershed-management-meaning-types-steps-and-programmes/773092. https://www.geographynotes.com/watershed-management-2/watershed-management-components-and-practices-geography/62503. https://lotusarise.com/watershed-management-upsc/4. https://www.indiawaterportal.org/faqs/watershed-management-in-india5. https://www.india.gov.in/integrated-watershed-management-programme-ministry-rural-development6. https://www.mapsofindia.com/government-of-india/integrated-watershed-management-programme.html
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COs- POs Matrix

Pos/ Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	2
CO2	2	1	3	3	2	2	2	2	3	2	2
CO3	2	1	3	3	2	2	2	2	2	3	3
CO4	2	1	3	3	2	2	2	2	3	3	2
CO5	2	1	3	3	2	2	2	2	3	2	3
CO6	2	3	2	3	3	1	2	3	3	3	3

1. **Low**
2. **Medium**
3. **High**

School: SSHSS		Batch: 2024-2026	
Programme: M.A. Geography		Current Academic Year: 2025-2026	
Branch: Geography		Semester IV	
1	Course Code	MGO206	
2	Course Title	Flow Analysis and Transport Network	
3	Credits	4	
4	Contact Hours (L-T-P)	3-1-0	
	Course Type	Core Course (CC)	
5	Course Objective	1) The students will be exposed to the role and significance of ‘transport’ in geography. 2) The students will be conscious of the various facets of transport network. 3) The students will be conscious of the various techniques of flow analysis.	
6	Course Outcomes	The student will be able to; CO1: define the principal issues confronting the transportation systems today. CO2: explain and get an insight into accessibility issues. CO3: apply the graph theory. CO4: analyse the urban transportation systems of the world. CO5: evaluate various regional transport planning. CO6: formulate overall issues of transport and flow analysis for better management of community and commodity.	
7	Course Description	The course touches upon the principal issues confronting the transportation systems. The course also provides an insight into ‘how transportation systems work’, through live case-study from India and World.	
	Unit 1	Transport and Spatial Interaction	CO Mapping
	A	<ul style="list-style-type: none"> Spatial interaction and time-space convergence. 	CO2, CO5
	B	<ul style="list-style-type: none"> enlarging the catchment area of markets, dynamic relationship between transport and spatial readjustment 	CO1, CO2
	C	<ul style="list-style-type: none"> role of transport as a lead sector 	CO1, CO2
	Unit 2	Problem of accessibility:	
	A	<ul style="list-style-type: none"> The transport network, network shape and location, 	CO2, CO3
	B	<ul style="list-style-type: none"> regional variations in its density, methods of measurement, transport and spatial processes, 	CO2, CO3
	C	<ul style="list-style-type: none"> traffic flow and regional interaction 	CO2, CO3
	Unit 3	Theory and topology	
	A	<ul style="list-style-type: none"> Graph theory and Network Geometry: 	CO2, CO3
	B	<ul style="list-style-type: none"> Concept of topology, 	CO2, CO3

	C	<ul style="list-style-type: none"> topological measurement of network efficiency. 	CO2, CO3
	Unit 4	Urban Transport:	
	A	<ul style="list-style-type: none"> Profile of urban transport facilities, 	CO3, CO4
	B	<ul style="list-style-type: none"> traffic in towns, transport services and urban land use pattern, 	CO3, CO4
	C	<ul style="list-style-type: none"> role of intermediary transport modes, modal split. 	CO3, CO4
	Unit 5	Regional Transport Planning:	
	A	<ul style="list-style-type: none"> The framework of regional transport planning traffic generation, methods of forecasting, zonal interchange of traffic, 	CO2, CO6
	B	<ul style="list-style-type: none"> mode and route assignment methods; Indian Transport: Transport development during colonial and plan periods 	CO6
	C	<ul style="list-style-type: none"> transport and regional structure of Indian Economy, metropolitan transport. 	CO5, CO6
	Mode of examination	Theory	
	Weightage Distribution	IA	EA
		25%	75%
	Text Book/s	<p>1. Brooks, P.W., 1994. <i>The Development of Air Transport</i> Hurst, M.E. (ed.) <i>Transportation geography: Comments and Reading</i>, Mc Graw Hill, 256-273</p> <p>2. Gautam, P.S. 1992. <i>Transport Geography of India: A Study of Chambal Division, M.P.</i>, Mittal Publications, New Delhi</p>	
	Reference books	<p>1. Ashton, W.D., 1966. <i>The Theory of Traffic Flow</i>, Methuen , London</p> <p>2. Berry, B.J.L <i>et a.</i>, 1966. <i>Essays on Commodity Flow and Spatial Structure of Indian Economy</i>, Department of Geography, Chicago.</p> <p>3. Berry, B.L.J. and Marble, D.F. (eds.) 197). <i>Spatial Analysis: A Reader in Statistical Geography</i>, Prentice Hall.</p> <p>4. Cooley, C.H. 1994. <i>The Theory of Transportation</i>, in Hurst, M.E. (ed.) <i>Transportation geography: Comments and Reading</i>, Mc Graw Hill, 15-29.</p>	



	<p>6. Fleming, D.K. and Hayuth, Y. 1994. Spatial Characteristics of Transportation Hubs: Centrality and Intermediacy, <i>Journal of Transport Geography</i>, 2 (1), 3-18.</p> <p>7. Haggett, P. 1965. <i>Locational Analysis in Human Geography</i>, London.</p> <p>8. Haggett, P. and Chorley, R.J. 1969. <i>Networks Analysis in Geography</i>, London.</p> <p>9. Kansky, K.J., 1963. <i>Structure of Transportation Networks: Relationships between Network Geometry and Regional Characteristics</i>, University of Chicago, Department of Geography, Research Paper, Chicago, 84.</p> <p>10. Nagar, V.D. and Gautam S. 1964. <i>Principles and Problems of Indian Transport</i>, Kailash Pustak Sadan, Gwalior.</p> <p>11. Owen, W. 1968. <i>Distance and Development: Transport and Communications in India</i>, Washington.</p> <p>12. Raza, M. and Aggarwal, Y. 1986. <i>Transport Geography of India</i>, Concept Publishing Company, New Delhi.</p> <p>13. White, H. P. and Senior, M.L. 1983. <i>Transportation Geography</i>, Longman Inc. New York.</p>
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COs- POs Matrix

Pos/ Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	2
CO2	2	1	3	3	2	2	2	2	3	2	2
CO3	2	1	3	3	2	2	2	2	2	3	3
CO4	2	1	3	3	2	2	2	2	3	3	2
CO5	2	1	3	3	2	2	2	2	3	2	3
CO6	2	3	2	3	3	1	2	3	3	3	3

- 1. Low
- 2. Medium
- 3. High

School: SSHSS		Batch: 2024-2026	
Programme: M.A. Geography		Current Academic Year: 2025-2026	
Branch: Geography		Semester IV	
1	Course Code	MGO205	
2	Course Title	Geography of Urban Environment and Urban Management	
3	Credits	4	
4	Contact Hours (L-T-P)	3-1-0	
	Course Type	Core Course (CC)	
5	Course Objective	<p>This course attempts to acquaint the students to the conceptual process of urban environment.</p> <p>2) The course examines the questions related to urban urbanization and contemporary environmental issues in India.</p> <p>3) It also critically evaluates the policies and interventions aimed at sustainable urban environment development and management state</p>	
6	Course Outcomes	<p>The student will be able to;</p> <p>CO1: define the concepts and components of urban development and management.</p> <p>CO2: explain urban poverty and slums at different scales.</p> <p>CO3: apply knowledge of urban infrastructure development management and urban governance.</p> <p>CO4: analyse the concepts and process of urban environmental issues.</p> <p>CO5: evaluate the consequences of urban environmental consequences at different scales.</p> <p>CO5: elaborate on the knowledge of sustainable environmental management strategies and institutional arrangements</p>	
7	Course Description	This course attempts to acquaint the students to the conceptual process of urban environment. It also critically evaluates the policies and interventions aimed at sustainable urban environment development and management strategies.	
	Unit 1	Introducing Urban Environment:	CO Mapping
	A	<ul style="list-style-type: none"> nature and concept, 	CO2, CO5
	B	<ul style="list-style-type: none"> relevance of the study at local, regional and global level, 	CO1, CO2
	C	<ul style="list-style-type: none"> dynamics of urban environment. 	CO1, CO2
	Unit 2	Urban Development Concepts and Process:	
	A	<ul style="list-style-type: none"> Trend of urbanization in developed and developing countries, 	CO2, CO3

	B	<ul style="list-style-type: none"> Physical expansion of cities, ecological foot prints and urban heat island. 	CO2, CO3
	C	<ul style="list-style-type: none"> Ecological foot prints and urban heat island. 	CO2, CO3
	Unit 3	Urbanization and Environment in India:	
	A	<ul style="list-style-type: none"> trends and patterns of urbanization; contemporary environmental issues: 	CO2, CO3
	B	<ul style="list-style-type: none"> water, air, solid waste and e-waste pollution; slums: ecological and health consequences; Case studies. 	CO2, CO3
	C	<ul style="list-style-type: none"> green building, open and green patches; sustainable waste management; wastewater management strategies; Case studies. 	CO2, CO3
	Unit 4	Urban Issues and Components:	
	A	<ul style="list-style-type: none"> Concept of urban development and management; urbanization: trends, patterns; challenges in developing world 	CO3, CO4
	B	<ul style="list-style-type: none"> Urban Poverty Alleviation: Concept of urban poverty, poverty and informal sector; urban basic services for the poor; employment opportunities; Case studies 	CO3, CO4
	C	<ul style="list-style-type: none"> Slum Improvement and Upgradation in India: Nature of slum; evaluation of slum improvement programmes and schemes; resettlement and rehabilitation actions; infrastructure development in slums; Case Studies. 	CO3, CO4
	Unit 5	Infrastructure Development Management:	
	A	<ul style="list-style-type: none"> Urban land use planning; water supply and sanitation; housing; traffic; disaster management 	CO2, CO6
	B	<ul style="list-style-type: none"> Sustainable Urban Development and Management: 	CO6
	C	<ul style="list-style-type: none"> Integrated infrastructure development planning; Management towards sustainable cities; Government programmes and policies 	CO5, CO6
	Mode of examination	Theory	
	Weightage Distribution	IA	EA
		25%	75%
	Readings Text book/s*	1. Atkinson, A. et. al., 1999. <i>The Challenges of Environmental Management in Urban Areas</i> , Ashgate Pub. Co., Sydney.	

		<p>2. Gilbert, R., Stevenson, G. H. and Stren, R. 1996. <i>Making Cities Work</i>, Earthscan Publications, London.</p>
Reference Book		<p>3. Hardoy, J.E., Mitlin, D. and Satterthwaite, D. 1992. <i>Environmental Problems in Third World Cities</i>, Earthscan, London.</p> <p>4. Joss, Simon, 2015. <i>Sustainable Cities: Governing for Urban Innovation</i>, Palgrave, London.</p> <p>5. Kundu, A. 1993. <i>In the Name of Urban Poor: Access to Basic Amenities</i>, Sage, Delhi.</p> <p>6. Maitra, A. K. 2000. <i>Urban Environment in Crisis</i>, New Age International Publishers, New Delhi.</p> <p>7. Pugh, C. 1996. <i>Sustainability, the Environment and Urbanization</i>, Earthscan Publications, London.</p> <p>8. Ronald, J. F., et.al. 1994. <i>Mega City Growth and the Future</i>, United Nations University Press, New York.</p> <p>9. Singh, K. and Steinberg, F.M. 1996. <i>Urban India in Crisis</i>, New Age International Limited Publications, New Delhi.</p> <p>10. Singh, R.B. (ed) 2006. <i>Sustainable Urban Development</i>, Concept Publishing Company, New Delhi.</p> <p>11. Singh, R. B. (ed) 2015. <i>Urban Development Challenges, Risks and Resilience in Asian Mega Cities</i>, Springer, Japan.</p> <p>12. Sivaramakrishnan, K.C. 2001. <i>Problems of Governance in South Asia</i>, Centre for Policy Research, New Delhi.</p> <p>13. Timothy, B. 2009. <i>Sustainable Urban Development</i>, Routledge, London</p> <p>14. Wheeler, S.M. and Beatley, T. 2014. <i>The Sustainable Urban Development</i>, Routhledge, New York.</p> <p>15. Badcock, B. 2002. <i>Making Sense of Cities: A Geographical Survey</i>, Oxford University Press, London</p> <p>16. Douglas. I. 1983. <i>The Urban Environment</i>, Edward Arnold, Maryland, USA.</p> <p>17. Friedmann, J. 1995. <i>Where we stand: A Decade of World City Research</i>, In: P. L. Knox and P. Taylor (eds) <i>World Cities in a World-system</i>. 21-47. Cambridge University Press, Cambridge:</p> <p>18. Hardoy, J. E., Mitlin, D. Satterthwaite, D. 1992. <i>Environmental Problems in Third World Cities</i>, Earthscan, Great Britain.</p> <p>19. Housing and Urban Development Corporation (HUDCO) & UN Centre for Human Settlements (Habitat) 2001. <i>The State of Indian Cities 2001</i>, HUDCO and Habitat, Nairobi- New Delhi.</p> <p>20. Michael, P. 2009. <i>Urban Geography: A Global Perspective</i>, Taylor & Francis, Great Britain.</p> <p>21. Marcotullio, P. and Mc Granahan. G. 2007. <i>Scaling Urban Environmental Challenges: From Local to Global and Back</i>, Earthscan, Great Britain.</p> <p>22. Murray, Robin 2002. <i>Zero Waste</i>, Greenpeace Environmental Trust, Londoan</p> <p>23. Newman, P. 2002. <i>The Environmental Impacts of Cities</i>, Environment and Urbanization, 18: 275.</p> <p>24. Singh, R. B. (ed.) 2015. <i>Urban Development Challenges, Risks and Resilience in Asian Mega Cities</i>, Springer, Japan.</p>

		25. Singh, Savindra 2015. ParyavaranBhoogol, PrayagPustakBhavan, Allahabad (Hindi) 26. Roberts, P., Ravetz, J. and George, C. 2009. <i>Environment and the City</i> . Routledge, London 27. White, R. 1994. <i>Urban Environmental Management</i> , Routledge, London
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COs- POs Matrix

Pos/ Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	2
CO2	2	1	3	3	2	2	2	2	3	2	2
CO3	2	1	3	3	2	2	2	2	2	3	3
CO4	2	1	3	3	2	2	2	2	3	3	2
CO5	2	1	3	3	2	2	2	2	3	2	3
CO6	2	3	2	3	3	1	2	3	3	3	3

1. Low
2. Medium
3. High

School: SHSS		Batch: 2024-2026	
Program: MA		Current Academic Year: 2025-2026	
Branch: Geography		Semester: IV	
1	Course Code	MGP203	
2	Course Title	DISSERTATION I	
3	Credits	12	
4	Contact Hours(L-T-P)	0-0-24	
	Course Type	Core Course (CC)	
5	Course Objective	<ul style="list-style-type: none"> • To acquaint students with the philosophy, ethics, design, and evaluation of research in Social Sciences. • To create awareness about the basics of scientific research in Social Sciences. • To understand methodology of quantitative and qualitative research. • To provide the theoretical orientation and background for research. 	
6	Course Outcomes	<p>The student will be able to-</p> <p>CO1: define the nature of his research. CO2: explain different variables associated with his study. CO3: identify the variables to study their relevance and effect. CO4: list the gaps in his research topic. CO5: deduct their experimental findings CO6: develop a complete research plan.</p>	
7	Course Description	This course will introduce the principal steps taken during a social science research study and aims to provide students with the knowledge and competencies necessary to plan and conduct research projects of their own.	
	Unit 1	Data collection	
		Data collection, Analysis, developing, graphs, pie charts	
	Unit 2	Results and interpretation	
		Analysis of findings, interpretation with supporting researches, merits and demerits	
	Unit 3	References	
		References as per APA	CO3, CO6

	Unit 4	Pre- submission	
		Departmental presentation of research work, correction.	CO2, CO3, CO4, CO5, CO6
	Unit 5	Dissertation	
		Submission and defending the research work, Sending paper for publication	CO2, CO3, CO4, CO6
	Mode of examination	Practical/Viva	
	Weightage Distribution	IA	EA
		60%	40%
	Readings Text book*	<ul style="list-style-type: none"> • Relevant Journals • Books 	

COURSE ARTICULATION MATRIX

1. **-High**
2. **-Medium**
3. **Low**

Pos/ Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	2
CO2	2	1	3	3	2	2	2	2	3	2	2
CO3	2	1	3	3	2	2	2	2	2	3	3
CO4	2	1	3	3	2	2	2	2	3	3	2
CO5	2	1	3	3	2	2	2	2	3	2	3
CO6	2	3	2	3	3	1	2	3	3	3	3