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Study & Evaluation Scheme

of

M.A. (Geography) Session 2022-23

(As per CBCS guidelines)

Programme	M.A. (Geography)
Course Level	PG Degree
Duration	Two years (four semesters) Full Time
Medium of Instruction	English/Hindi
Minimum Required Attendance	75%
Maximum Credits	96

	Eva	Evaluation Scheme					
	Internal	External	Total				
Theory	30	70	100				
Practical	30	70	100				
Seminar/Survey Camp	100		100				
Project/ Dissertation	30	70	100				

Programme Objectives:

The 'Master of Arts in Geography' programme offered by the department, aims at empowering students with knowledge and skills for spatial thinking and analysis, to navigate real world problems, and contribute to society in a meaningful way.

Programme Outcomes (POs):

At the end of the two-year (four-semester) course, students will have comprehensive knowledge about contemporary issues in geography, both physical and human.

PO1: This course provides the basic ideas and concepts of Physical & Human Aspect of Geography for fulfilling global needs.

PO2: This course intends to orient the learner with the Approaches to the broader discipline of Geography.

PO3: It will help in developing analytical and critical thinking based on the themes and issues of geography at local and national level.

PO4: It eventually prepares the students to understand the development of the subject and delve around issues suited to the needs of the contemporary world for fulfilling global needs.

PO5: It will help in exhaustive understanding of the basic concepts of Geography and an awareness of the emerging areas of the field at local and national level.

PO6: Acquisition of in-depth understanding of the applied aspects of Geography as well as interdisciplinary subjects in everyday life at nationally and globally.

PO7: Improvement of critical thinking and skills facilitating nationally and globally.

PO8: The application of knowledge gained in the field of Geography in the classroom to the practical solving of social problems at local and national level.

PO9: The programme orients students with tradition geographical knowledge along with advance contemporary skills like remote sensing and GIS on nationally and globally.

Programme Specific Outcomes (PSOs):

PSO1: Appreciate and benefit from the symbiotic relationship among the core disciplines of **Geography** – Social Geography, Economic Geography, Political Geography, Cultural Geography of India and the World.

PSO2: Programme is designed to encourage Ethical and Environmental values for sustainable development in the Social Geography.

PSO3: Programme is designed to encourage a genre of responsible students with a passion for lifelong learning and entrepreneurship, it also generates multi-skilled leaders with a holistic perspective that cuts across disciplines.

PSO4: Promote research, innovation and design (Map and Atlas) development favoring all the disciplines in Geography.

PSO5: Enhance digital literacy and apply them to engage in real time problem solving and ideation related to all fields of Geography.

PSO6: After this degree programme students can be benefitted by getting jobs in various fields like government sector, working with NGOs, jobs as a Geomorphologist, Astronomer, Cartographers, Tourism Manager, Meteorologist, Agricultural Scientist etc. and also they can feel the sense of entrepreneurship as well.

IFTM, University Moradabad Study and Evaluation Scheme Master of Arts (Geography) 2022-23

S.	Paper Code	Title of the Course	Hour	s per	Week	Credits		Evaluation Scheme	
N.			L T P				Internal	External	Total
	,	SEMESTER	<u> –I</u>						
1.	GEOCC101	Advanced Geomorphology	3	1		04	30	70	100
2.	GEOCC102	Advanced Geography of India	3	1		04	30	70	100
3.	GEOCC103	Evolution and Development of	3	1		04	30	70	100
		Geographical Thought							
4.	GEOCC151	Advanced Statistical Techniques in			4	04	30	70	100
		Geography							
5.	GEOCC152	Advanced Cartography			4	04	30	70	100
	Select any or	ne (Elective Course) of the following	-						
	GEOEC104	Natural Resource Management	3	1					
	GEOEC105	Soil Geography	3	1					
6.	GEOEC106	Geography of Tourism	3	1					
	GEOEC107	Mountain Geography with Special	3	1		04	30	70	100
		Reference to the Indian Himalaya							
	GEOEC108	Cultural Geography	3	1					
	Total	Number of Credits for Semester –I				24			
		SEMESTER	–II						
7.	GEOCC201	Principles of Applied Climatology	3	1		04	30	70	100
8.	GEOCC202	Contemporary Human Geography	3	1		04	30	70	100
9.	GEOCC203	Industrial Geography	3	1		04	30	70	100
10.	GEOCC251	Remote Sensing			4	04	30	70	100
11.	GEOCC252	Geographical Information System			4	04	30	70	100
		ne (Elective Course) of the following							
	GEOEC204	Regional Planning and	3	1					
		Development							
	GEOEC205	Rural Geography	3	1					
12.	GEOEC206	Social Geography of India	3	1		04	30	70	100
	GEOEC207	Geography of Migration	3	1					
	GEOEC208	World Regional Geography	3	1					
	Total Numb	er of Credits for Semester –II				24			
	Total N	umber of Credits for First Year				48			
		SEMESTER							
13.	GEOCC301	Research Methodology in	3	1		04	30	70	100
		Geography							
14.	GEOCC302	Principles of Applied	3	1		04	30	70	100
		Oceanography							
15.	GEOCC351	Advanced Surveying			4	04	30	70	100

16.	GEOCC352	Field Work & Tour Report			4	04	100		100
	Select any or	ne (Elective Course) of the following	-		ı				•
	GEOEC303	Population Geography	3	1					
	GEOEC304	Settlement Geography	3	1					
17.	GEOEC305	Recent Advances in Geography	3	1		04	30	70	100
		Urban Geography	3	1					
	GEOEC307		3	1					
		ne (Open Elective) of the following-	ı		T		•	•	
	GEOOE301	Disaster Management	3	1					
18.		Heritage Conservation	3	1		04	30	70	100
	Total Numb	er of Credits for Semester –III				24			
		SEMESTER			T				
19.	GEOCC401	Agriculture Geography	3	1		04	30	70	100
20.	GEOCC402	Geography of Environment and	3	1		04	30	70	100
		Ecology							
21.	GEOCC451	Seminar/ Workshop/ Paper			2	02	30	70	100
	GEOD GUES	Presentation				0.5	20	70	100
22.	GEORC452	Dissertation & Viva-Voce			6	06	30	70	100
	Select any or	ne (Elective Course) of the following	-						
	GEOEC403	Modern Concept in Geography	3	1					
23.	GEOEC404	Political Geography	3	1					
23.	GEOEC405	Geography of Health	3	1		04	30	70	100
	GEOEC406	Regional Geography	3	1					
	GEOEC407	Media Geography	3	1					
	Select any or	ne (Open Elective) of the following-							
		Regional Development in India	3	1					
24.	GEOOE402	Culture, History and Landscape	3	1		04	30	70	100
	Total Numb	er of Credits for Semester –IV				24			
	Total Nun	aber of Credits for Second Year				48			
	To	tal Number of Credits for First Year				48			
		Number of Credits for Second Year				48			
		AL DEGREE CREDITS				96			
			<u> </u>		l	70	I		

#CC- Core Course, EC- Elective Course, OE- Open Elective, RC- Research Course

Master of Arts (Geography) GEOCC101; Advanced Geomorphology

Course Objectives:-

Students will be exposed to the nature of lithosphere, landform system, Earth movement and geomorphic processes and the application of geomorphic knowledge at various economic, human and cultural levels.

COURSE CONTENTS

UNIT I

Nature and scope of Geomorphology, Recent observations on some Fundamental concepts – Endogenetic and Exogenetic forces; Denudation; Geosynclines, continental drift; uniformitarianism and polygenetic evolution of landscapes for skill development, Employability and Entrepreneurship.

UNIT II

Earth movements - epeirogenic and orogenic earth movements. Forces of crustalin stability, isostasy, plate tectonics, vulcanicity, glacial, arid for skill development, Employability and Entrepreneurship.

UNIT III

Exogenic Processes- Concept of gradation, Agents and processes of gradation, causes, types and classification of weathering, mass movement, erosional and depositional processes and resultant landforms associated with fluvial and soil formation, Landscape evaluation models: W.M. Davis &Penck, Karst cycles or processes for skill development, Employability and Entrepreneurship.

UNIT IV

Applied geomorphology—hydro-geomorphology, urban geomorphology, environmental geomorphology, geomorphic hazards and mitigation measures for skill development, Employability and Entrepreneurship.

Course Outcomes:-

CO1: Students will critically evaluate the interactive spaces of physical, human and environmental components of Earth for fulfilling global needs.

CO2: The course enables the students to analyze the fundamental concepts of lithosphere and established the relations with geo-physical changes of geomorphic environment at local and national level.

CO3: Students will be able to provide the geomorphic concepts for economic manifestations in everyday life globally.

CO4: Students will be able to understand the use of applied geomorphology for fulfilling global needs.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	1	1	1	1	1	1	1	1
CO2	2	3	1	1	1	2	1	1	1
CO3	1	1	2	1	1	3	1	1	1
CO4	1	1	1	3	1	1	2	1	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	1
CO2	3	2	1
CO3	3	2	1
CO4	3	1	2

Suggested Readings:

- Ahmed, E. (1985): Geomorphology, Kalyani Publishers, New Delhi.
- ▶ Bloom, A.L. (1998/2001): Geomorphology, 3rd Edition, Prentice Hall of India, New Delhi.
- Chorley, R.J. (1972): Spatial Analysis in Geomorphology, Methuen, London.
- ➤ Chorley, R.J., Schumm, S.A. and Sugden, D.E. (1984): Geomorphology, Methuen and Company Ltd., London.
- Dayal, P. (1996): A Text Book of Geomorphology, Shukla Book Depot, Patna.
- Dury, G.H. (1959): The Face of the Earth, Penguin Harmonds worth.
- Fairbridge, R.W. (1968): Encyclopedia of Geomorphology, Reinholdts, New York.
- ➤ Garner, H.F. (1974): The Origin of landscape- A Synthesis of Geomorphology, Oxford University Press, London.
- > Singh, Savindra: Geomorphology (in Hindi).

Website Sources:-

- www.physicalgeography.net
- www.priysicargeograp
 en.m.wikipedia.org
 www.britannica.com
 www.topper.com
 climate.ncsu.edu

- > science.jrank.org

Master of Arts (Geography) GEOCC102; Advanced Geography of India

Course Objectives:-

The objective of this course is to develop the understanding about physical features of Indian Geography. To familiarize the students with physiography, Drainage, Climate, soil and natural vegetation of Indian geography.

Course contents

UNIT I

Physical Aspects:

Geological history, physiography and drainage patterns and systems; climate including origin and mechanism of the Indian monsoon, soils and natural vegetation: distribution and utilization for skill development, Employability and Entrepreneurship.

UNIT II

Population and other Human Aspects:

Population distribution, density and growth, population problems and policies. Sex and literacy differentials, Genesis of ethnic/racial diversities; tribal areas and their problems; trends of urbanization, population policy for skill development, Employability and Entrepreneurship.

UNIT III

Agricultural Scenarios:

The infrastructure, irrigation, power, fertilizers and seeds, institutional factors-landholdings, tenure, consolidation and land reforms, agricultural efficiency and productivity, intensity of cropping, crop combination and agricultural regionalization, green, white, blue and yellow revolutions, dry zone agriculture and agricultural land use policy for skill development, Employability and Entrepreneurship.

UNIT IV

Industrial Resource Base:

History of industrial development, factors of localization; Types of industry, study of mineral-based, agro-based and forest-based industries, house hold industry, engineering and other demand-based industries, new industrial policy; globalization and liberation, industrial complexes and industrial regionalization, Study of the transport network development: roadways, railways, airways and waterways for skill development, Employability and Entrepreneurship.

Regional Divisions of India:

Detailed study of Kashmir region, Uttarakahnd Himalaya, Lower Ganga Plain, Chota-Nagpur Plateau, Thar Desert, Aravali uplands, Andhra Plateau and West Coast region for skill development, Employability and Entrepreneurship.

Course Outcomes:

Students will be able to understand

CO1: About Physical Aspects for fulfilling global needs.

CO2: To develop understanding about Population and Other Human aspects at local And national level.

 $\textbf{CO3:} \ \ \textbf{To develop understanding about Agricultural Scenarios for fulfilling global needs}.$

CO4: To develop knowledge about Industrial Resource Base for fulfilling global needs.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	1	1	2	1	1	1	1	1
CO ₂	1	3	1	1	1	1	2	1	1
CO3	2	1	3	1	1	2	1	1	1
CO4	1	2	2	2	1	1	1	3	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	2
CO2	3	2	1
CO3	3	2	2
CO4	3	1	1

Suggested Readings:

- ➤ Bansal, S.C. (2011): India: An Advanced Geography of India: MeenakshiPrakashan, Meerut (in Hindi).
- ➤ Centre for Science & Environment: State of India's Environment, New Delhi, 1988.
- Deshpande, C.D. (1992): India: A Regional Interpretation ICSSR & Northern Book Centre.
- ➤ Gole, P.N. (2001): Nature Conservation and Sustainable Development in India. Rawat Publications, Jaipur and New Delhi.
- ➤ Khullar, D.R. (1968): India. A Comprehensive Geography. Kalyani Publishers, New Delhi, 2006.
- ➤ Krishnan, M.S.: Geology of India and Burma, 4th Edition, HigginBothams Private Ltd., Madras.
- Majid, Husain (2008): Geography of India, Tata McGraw Hill Company, New Delhi.
- Nag, P. and Gupta, S.S. (1992): Geography of India, Concept Publishing Company, New Delhi.
- ➤ Singh, J. (2003): India: A Comprehensive and Systematic Geography, GyanodayaPrakashan, Gorakhpur.
- ➤ Singh, R.L. (Ed.) (1971): India: A Regional Geography, National Geographical Society ofIndia, Varanasi.

Website Sources:-

- > www.physicalgeography.net
- > en.m.wikipedia.org
- > www.britannica.com
- www.topper.com
- > www.ncert.nic.in
- > science.jrank.org

Master of Arts (Geography)

GEOCC103; Evolution and Development of Geographical Thought

Course Objectives:-

The course is intended to develop the philosophical and historical aptitude among students in the context of evolution and development of geographical ideas, theme, approaches and knowledge. Students will be acquainted with the philosophers of different school of thought that contributed in the development of geography as a branch of knowledge.

Course Contents:

UNIT I

General characteristics of geographic knowledge during the ancient and medieval period, foundations of modern geography; determinism, Neo-determinism and possibilism; areal differentiation and spatial organization for skill development, Employability and Entrepreneurship.

UNIT II

Development of geographical thought during Greek Period: Contributions of Thales, Anaximander, Hecataeus, Herodotus, Eratosthenes, Strabo and Ptolemy, Dark Age and Contribution of Arabs in scientific geography: Al Khwarizmi, Al Masudi, Al Biruni and Ibn-Khaldun for skill development, Employability and Entrepreneurship.

UNIT III

Contributions of German School-Humboldt, Ritter, Ratzel. Contribution of French School-Vidal-De-IaBlache. Contribution of British School-Meckinder the relevance of Heartland theory in present day-Geo-political order. Contribution of American School for skill development, Employability and Entrepreneurship.

UNIT IV

Development of Modern Geography: Contributions of History and Development of Geographical Thought in India: Contribution of Indian Scholars in Geography. Development of Indian Geography after independence. Expansion of Geography Teaching in Indian Universities and Professional Institutions for skill development, Employability and Entrepreneurship.

Course Outcomes:-

CO1: To visualize the basic theme for fulfilling global needs.

CO2: students will be able to understand ideas, dichotomies and approaches of geographic knowledge with relation to historical juncture, varying schools and era of their emergence at local and national level.

CO3: Students will be able to critically evaluate the nature of geography as spatial science with changing space and time globally.

CO4: students will be able to know the development of modern Geography for fulfilling global needs.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	2	1	2	1	3	2	1	2
CO2	1	3	2	1	2	2	1	1	1
CO3	1	1	2	3	1	1	2	2	1
CO4	2	1	2	1	3	1	1	1	2

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	2
CO2	3	2	1
CO3	3	2	1
CO4	3	1	2

Suggested Readings:

- Abler, Ronald; Adams, Jons, S. Gould, Peter, N.J. (1971): Spatial Organization: The Geographer's View of the World, Prentice Hall, New Jersey.
- Ali S.M. (1966): The Geography of Puranas, Peoples Publishing House, Delhi.
- Amedeo, Douglas (1971): An Introduction to Scientific Reasoning in Geography, Johniley, U.S.A.
- ➤ Bansal, S.C. (2010): History of Geographical thought (in Hindi).
- ➤ Danieals, P., Bradshow, M., Shaw, D. And Sidaway, J. (2000): An Introduction to Human Geography. Issues for the 21st Century. Prentice Hall, London.
- ➤ Dikshit, R.D. (2004): Geographical Thought. A Critical History of Ideas. Prentice-Hall of India, New Delhi. (English and Hindi).
- Dikshit, R.D. (ed.) (1994): The Art & Science of Geography Integrated Readings, Prentice Hall of India, New Delhi.
- Dikshit, Shreekant (2000): BhugoolikChintan, UdhavkeVikas, Varanasi.
- Harvey, D. (1969): Explanation in Geography. Arnold, London.

Website Sources:-

- www.physicalgeography.net
- www.britannica.com
- > www.topper.com
- www.ncert.nic.in
- > science.jrank.org
- www.cambridge.org
- > www.ncert.nic.in
- > researchgate.net
- > en.m.wikipidia.org
- > www.amu.ac.in

Master of Arts (Geography)

GEOCC151; Advanced Statistical Techniques in Geography

Course Objectives:-

The objective of this course is to introduce the basic statistical techniques, theoretical context and its application in the field of geography.

Course Contents:

UNIT I

Data sources and type of data, statistical diagrams, study of frequency distribution and cumulative frequency for skill development, Employability and Entrepreneurship.

UNIT II

Measures of central tendency; selection of class intervals for mapping, Standard Deviation for skill development, Employability and Entrepreneurship.

UNIT III

Measurement of dispersion and concentration. Standard deviation; Lorenz curve; Correlation – Spearman's and Carl Parsons Methods, simple and multiple correlation; regression and Line of Regression, Chi-square test, binomial test for skill development, Employability and Entrepreneurship.

UNIT IV

Measurement of spatial patterns of distribution; nearest- neighbour analysis; scaling techniques, rank score, weighted score, sampling techniques for geographical analysis for skill development, Employability and Entrepreneurship.

Course Outcomes:-

CO1: To determine basic quantitative data, techniques and its appropriate uses in geographical studies for fulfilling global needs.

CO2: To know the central tendency globally.

CO3: To measure of data at local and national level.

CO4: To know the scaling of data for fulfilling global needs.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	1	1	1	2	1	3	1	1	1
CO2	2	2	1	2	1	1	1	1	1
CO3	3	1	2	1	1	2	1	1	1
CO4	1	2	1	1	2	2	1	2	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	2
CO2	3	2	1
CO3	3	1	1
CO4	3	2	1

Note:

For written test in all 10 questions shall be given selecting 02 questions from each unit. The students shall be attempting five questions selecting one question from each unit. Each question shall be carrying 10 marks.

For Examination Break-Up of Marks-

Written Test (3 Hrs.) 50 marks

Viva - voce 10 marks Record work- 10 marks

Suggested Readings:

- Alvi, Zamiruddin, Statistical Geography.
- ➤ Berry, B.J.L., & Marble, D.F., Spatial Analysis: A Reader in Statistical Geography, New Jersey, 1968.
- Cole, J.P., & King, C.A.M., Quantitative Methods in Geography, New York, 1968.
- ➤ Elhance, D.N., Elementary Statistics.
- ➤ Gregory, S., Statistical Method for Geography, Longman, 1975.
- ➤ Hammond / Mc Cullah, Quantitative Techniques in Geog., Oxford, 1974.
- ➤ Johnson, R.J., Multivariate Statistical Analysis in Geography, 1978.
- ➤ King, L.J., Statistical Analysis in Geography, New Jersey.
- ➤ Pal, S.K., Statistical Methods in Geography.

Website Sources:-

- www.physicalgeography.net
- > www.britannica.com
- www.topper.com
- www.ncert.nic.in
- ➤ Onlinelibrary.wliey.com
- www.cambridge.org
- www.ncert.nic.in
- > researchgate.net
- > en.m.wikipidia.org
- > www.earthonlinemedia.com

Master of Arts (Geography) GEOCC152; Advanced Cartography

Course Objectives:

Major objective of this course is to develop the cartographic skill of students to depict and represent the geographic information on the map. The course will create the ability of students to adapt various methods of relief, slope and climatic analysis as well as thematic mapping.

Course Contents:

UNIT I

Elements of Cartography: Definition, Scope and Development of Modern Cartography since World War II. Definition and Classification of Map. Map as a Data Model. Cartographic Designs. Tools of Map Making. Lettering and Symbolization of Maps. Techniques of Map Reproduction. Computer Assisted Cartographic and Atlas Mapping for skill development, Employability and Entrepreneurship.

UNIT II

Graphical Presentation of Statistical Data: Types of Graphs and Diagrams, Construction of Climograph, Ergograph, Hythergraph, Bandgraph, Wind Rose. Compound Pyramid Diagram, Circle and Spherical Diagram, Dispersion and Scatter Diagrams for skill development, Employability and Entrepreneurship.

UNIT III

Distribution Maps: Types and Methods of drawing thematic maps, single purpose and composite maps, Chorochromatic, Choropleth, Isopleths and Pie diagrams for skill development, Employability and Entrepreneurship.

UNIT IV

Map Projections: Coordinate systems and map projections Properties, classification and choice of map projections. Mathematical construction of Sinusoidal, Mollweide, International and Gall's Projections for skill development, Employability and Entrepreneurship.

Course Outcomes:-

CO1: To know In addition to the ability of understanding and reading maps for fulfilling global needs.

CO2: To develop cartographic skills for fulfilling global needs.

CO3: To create maps on their own at local and national level.

CO4: To know the merits of projection for fulfilling global needs.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	2	1	1	1	1	2	1	1
CO2	2	1	2	1	1	1	3	2	2
CO3	1	1	1	2	2	1	1	3	1
CO4	1	1	2	2	3	1	2	2	2

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	1	2
CO3	3	2	2
CO4	3	1	1

Note:

For written test in all 10 questions shall be given selecting 02 questions from each Unit. The students shall be attempting five questions selecting one question from each unit. Each question shall be carrying 10 marks.

For Examination Break-Up of Marks-

Written Test (3 Hrs.)- 50 marks

Record Work- 10 marks Viva-voce - 10 marks

Suggested Readings:

- Archer, J.E., & Dalton, T.H., Fieldwork in Geography, London.
- ➤ Campbell, J., Introductory Cartography, Prentice Hall, Inc., Englewood Cliff, New Jersey, 1984.
- ➤ Cuff, D.J., & Mattson, M.T., Thematic Maps, their Design and Production, Methuen, New York. 1982.
- Monk house, F.J., Maps and Diagrams, Methuen & Co., London, 1967.
- ➤ National Atlas and Thematic Maps Organization (NATMO): National Atlas of India, Calcutta.
- ➤ Robinson, A.H. &others. Elements of Cartography, John Willey and Sons, New York (New edition).

Website Sources:-

- www.gisgeograpgy.com
- www.geoanwesomeness.com
- www.topper.com
- > www.ncert.nic.in
- > en.m.wikipidia.org

Master of Arts (Geography) GEOEC104; NATURAL RESOURCE MANAGEMENT

Course Objectives:

Major objective of this course is to develop an appreciation for the ecological diversity of the state. Understand the historical importance of natural resources in the economic development of the South, particularly Alabama. Understand the impact of changes in lifestyles and the economic base of the region and the state and the implications for land management. Understand the guiding principles of land stewardship and economic sustainability.

Course Contents:

UNIT I

Basic Framework:

Concept, Definition, Classification of natural resources, Process of resource development for skill development, Employability and Entrepreneurship.

UNIT II

Resource Appraisal:

Resource Analysis; Resource Mapping; Natural Resources Information System for skill development, Employability and Entrepreneurship.

UNIT III

Ecology and Ecosystem:

Meaning, Scope, Types and classification of ecology, functioning of ecosystem, energy and nutrients in ecosystem, productivity of ecosystem, Trophic levels, food chain, food web, ecological pyramids, bio-geo chemical cycles, Significance of ecosystem approach in natural resource studies for skill development, Employability and Entrepreneurship.

UNIT IV

Management of Natural Resources:

Concept and Approaches of natural resource management, People's participation and shared decision making in natural resource management, Gender issue and livelihood issues in natural resource management; Sustainable Resource Development; Community Based Natural Resource Management for skill development, Employability and Entrepreneurship.

Course Outcomes:-

CO1: To know the classification of natural resources for fulfilling global needs.

CO2: To learn about the Natural Resources Information System at local and national level.

CO3: To functioning of ecosystem at local and national level.

CO4: To know the resource management for fulfilling global needs.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	2	1	1	3	2	1	1	2	1
CO2	1	2	2	1	2	1	3	2	1
CO3	1	1	2	2	1	1	2	1	2
CO4	1	1	2	2	1	2	2	1	2

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	2
CO2	3	1	2
CO3	3	2	1
CO4	3	1	2

Suggested Readings:

- ➤ Hartshorn, T.A. & Alexander, J.W. Economic Geography, 3rd edn., 1994
- ➤ Boesch, Hans A Geography of World Economy
- > Fryer, D.W. World Economic Development
- > Gregor, H.F. Environment and Economic Life: An Economic and Social Geography
- ➤ Highsmith, R.M.(Jr.) Case Studies in World Geography
- ➤ Hoffman, L.A. Economic Geography
- ➤ Zimmerman, E.W. World Resources and Industries, Harper and Row, London,1951
- > Stringer, A. Davis A Geography of Resources
- Zones and Darkenwold Economic Geography
- Mccarty& Lindberg An Introduction to Economic Geography
- ➤ Miller, E.W. A Geography of Manufacturing
- Russel Smith Industrial and Commercial Geography
- Chishom Commercial Geography
- Eengston and Royen Fundamentals of Economic Geography
- ➤ Janaki, V.A. Economic Geography
- ➤ Guy, Harold Smith Conserving Natural Resources: Principles & Practice
- ➤ Kates, W. &Firey W,(ed) Man, Mind and Land: A Theory of Resource Use
- > Perloff, H.S. & Others Resources and Economic Growth
- ➤ Barlowe, R. Land Resource Economics
- > Zinnerman, E.W. Introduction to World Resources
- ➤ Singh, K.N. &Singh, J. ArthikBhoogolKeMoolTatwa (in Hindi)
- > Odum, E.P. Fundamentals of Ecology, W.B. Sanders, Philandelphia, 1971
- Park, C.C. Ecology and Environmental Management, Butterworths, London, 1980
- ➤ Paul, R.E. et.al Eco science: Population, Resource and Environment, W.H. Freeman, Sanfrancisco, 1977
- ➤ Smith,R.L. Man and his Environment: An Ecosystem Approach, Harper and Row, London, 1972
- South wich, Charles (ed.) Global Ecology, Sunderland, Massachusetts, 1985
- > Strahler, A. Geography and Man's Environment, John Wiley, New York, 1977.

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Master of Arts (Geography) GEOEC105; Soil Geography

Course Objectives:

Students should know soil geography is the fundamental branch of Physical Geography. To familiarize the students with the basic and fundamental concepts of soil geography, with this study, students understand soil is key resource for the development of any country. Students should know that concept ,causes and controlling factors soil erosion, soil degradation and Conservation of Soils v) Students should know the concept, need and methods soil of management vi) Students should know classification, characteristics and distribution of soils.

Course Contents:

UNIT I

Conceptual Base: Concept, scope, approaches and significance Soil Geography and its relationship with Pedagogy; Soil Forming Factors and profile for skill development, Employability and Entrepreneurship.

UNIT II

Soil Properties & Morphology: Physical, Chemical and biological properties of soils; Soil Morphology; Soil Reaction for skill development, Employability and Entrepreneurship.

UNIT III

Formation & Capability: Soil Forming Processes; Soil Catena, Land Capability and Land Suitability Classifications for skill development, Employability and Entrepreneurship.

UNIT IV

Taxonomy & Profiles: Genetic Classification of soils; Soil taxonomy: Soils orders and sub-order level; Soil Landscape Mapping.

Soil Degradation & Management:

Methods of Assessing Soil Erosion; Natural and Anthropogenic Factors of Soil Degradation; Soil Conservation and Management for skill development, Employability and Entrepreneurship.

Course Outcomes:

CO1: To know concept, scope, approaches and significance of soil for fulfilling global needs.

CO2: To develop Soil Morphology; Soil Reaction at local and national level.

CO3: To land capability and land suitability classifications globally.

CO4: To degradation; soil conservation and Management for fulfilling global needs.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	1	2	1	3	1	2	1	1	2
CO2	2	1	3	2	2	1	1	1	1
CO3	1	2	1	3	1	1	2	2	1
CO4	2	1	1	2	2	3	1	1	2

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	1	2
CO3	3	2	1
CO4	3	2	1

Suggested Readings:

- ➤ Buckman, H.O. & Brady, N.C. (1960): The Nature and Properties of Soils, New York: MacMillan, 1960.
- ➤ Bunting, B.T.(1967): The Geography of Soils, London: Hutchinson.
- Clarke, G.R. (1957): Study of the Soil in the Field, Oxford: Oxford University press.
- > Jenny, H. (1941): Factors of Soil Formation, New York: McGraw Hill.
- ➤ Robinson, G.W. (1949): Soils, their Origin, Constitution and Classification, London: Murley.
- Russell, E.J.(1961): The World of the Soil, Collins: fountain Library.
- ➤ Wilde, S.A. (1946) Forest Soils and Growth ,Waltham,ChronicaBotanica.

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- www.ncert.nic.in
- > en.m.wikipidia.org

Master of Arts (Geography) GEOEC106; Geography of Tourism

Course Objectives:

Major objective of this course is to familiarize the students with aspects of tourism which have a relation with the subject matter of Geography. To orient the students to the logistics of tourism industry and the role of tourism in regional development, To understand the impact of tourism on physical and human environments, To familiarize the students with local, regional and national tourism.

Course Contents:

UNIT I

Introduction and the Concept: Definition, Scope, Nature, Significance and Development of Geography of Tourism; Geography of Tourism as Applied Geography; The Tourist Phenomenon; Concept of Man, Environment and Tourism: The Interrelated Phenomena for skill development, Employability and Entrepreneurship.

UNIT II

Temporal Perspectives: The Growth of Tourism through Ages; Growth of Modern Tourism; Tourist Motivation, The Basic Components of Tourism, Elements of Tourism, Tourism in India: Past and Present for skill development.

UNIT III

Measurements and Dimensions of Tourism: Measurement of Tourism: Basic concept and Need of Tourism Phenomena; Tourist: the Connotation; Types of Tourist Statistics; Methods of Measurement; The Importance of Measurement; The Organization of Tourism, The National Tourism Organization; Dimensions of World Tourism; International Tourist Movements for skill development, Employability and Entrepreneurship.

UNIT IV

Resort Towns and Morphology: Analysis of Splendor Resources; Accommodation: Early History, Classification and Gradation, Attributes of Resort Towns, Morphology and Shape of Resort Towns, Parks and Wildlife Sanctuaries for skill development, Employability.

Tourist Industry and Environment: Transport and Tourism, Spatial Interaction Determinants and Pattern, Tourism Marketing; Tourism Promotion; Social and Economic, Significance of Travel and Tourism; Domestic and Foreign Travel, Planning for Tourism, Eco- friendly Tourism for skill development, Employability and Entrepreneurship.

Course Outcomes:

CO1: To describe the tourism geography and cognitive framework related to the tourism geography for fulfilling global needs.

CO2: To explain the importance of strategy and planning to improving sustainable tourism at local and national level.

CO3: To evaluates the main characteristics of spatial design of recreational activities for fulfilling global needs.

CO4: To relates the geography and tourism. Explains the impacts of geography on tourism, evaluates the impacts of tourism on geography, and relates the planning and tourism. Explains the varieties of tourism planning, evaluates the sustainability of tourism plans at local and national level,

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	1	1	2	2	1	1	1	1
CO ₂	2	2	3	1	1	2	1	1	1
CO3	1	1	2	1	1	1	2	2	1
CO4	2	3	1	1	1	2	1	1	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1
CO3	3	2	1
CO4	3	1	2

Suggested Readings:

- Arvil, R. (1967): Man and Environment Crisis and Strategy of Choice, Penguin, Harmonds worth, 1967.
- ➤ Berril, N.J. (1967): Inherity the Earth- The Story of Man and Changing Planet, Forwcett, Greenwich, Connecticut, 1967.
- ➤ Bhargava, Gopal (1992): Environmental Challenges and Ecological Disaster, Mittal Publication, New Delhi.
- ➤ Botkin, D.B. (1982): Environmental Studies, Charles, E. Meril and Keller, Edward, A. Publishing Co. Columus, Ohio.
- > C.S.E. (1984): The State of India's Environment: A Citizens Report, Centre for Science and Environment, New Delhi.
- ➤ Chada, S.K. (1993): Fragile Environment, Anmol Publication, New Delhi.
- ➤ Darlington, P.J. (1957): Zoo-Geography: The Geographical Distribution of Animals, Wiley, New York.
- Dasman, R.F. (1972): Environmental Conservation, John Wiley and Sons, New York.
- ➤ Detwyler, J.R. (1975): Man's Impact on Environment, John Wiley and Sons, New York.
- ➤ Khusoo, T.N.: Environmental Management Policies and Issues.
- ➤ Knowles, R. and Wareing, J.: Economic and Social Geography.
- Marsh, C. P. (1967): Man and Nature, Morvad.
- ➤ Odum, E.P.: Fundamentals of Ecology, Prentice Hall.
- ➤ Rustomji, N.K. and Ramble Charles (1990): Himalayan Environment and Culture, Indus Publishing Company, New Delhi.
- > The Hindu: A Survey of Environment.
- ➤ Robinson, H. (1976): A Geography of Tourism, Macdonald & Evans Ltd. Estober, Plymouth.
- ➤ Bhatia, A.K. (1983): Tourism Development: Principles and Practices, Sterling Publishers Pvt. Ltd., New Delhi.
- ➤ Cosgrove, I. and Jackson, R. (1972) The Geography of Recreation and Leisure, Hutchinson.
- White, J. (1967): History of Tourism, Leisure Arts, London.

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- www.topper.com
- www.ncert.nic.in
- > en.m.wikipidia.org

Master of Arts (Geography)

GEOEC107; Mountain Geography with Special Reference to the Indian Himalaya

Course Objectives:

Students will be gain a functional appreciation of mountain environments — types of mountains, phenomena and processes, human-mountain interactions. Understand the physical dynamics of mountains — controls and characteristics of climate, water, geology and soils. Understand how these features affect the distribution and types of life (vegetation, wildlife and humans) in mountains. Understand human-induced environmental impacts. Use the worldwide web as a global information resource.

Course Contents:

UNIT I

Mountain Systems of the World: Location, Extent, Origin and Physiographic of the major mountain systems (i.e., Alps, Andes, Rockies and Himalaya) of the world for skill development, Employability and Entrepreneurship.

UNIT II

The Himalaya: Natural Resources: Land Resource, Water Resource (Rivers, Glaciers and Lakes), Forests (Natural Vegetation) and Biodiversity, Degradation of natural resources for skill development, Employability and Entrepreneurship.

UNIT III

Major Environmental Challenges of the Himalaya: Erosional Hazards, Deforestation, Loss of Biodiversity, and wild life, Natural Disasters: Earthquakes, Landslides, Forest Fires, Climate Change for skill development, Employability and Entrepreneurship.

UNIT IV

Demographic Traits, Society and Culture: Population: Growth and Distribution, Population Migration, Major Tribes (Gaddies, Bhotias, Gujars and Nagas), Local Indigenous Knowledge of different societies /groups,

Economic Perspective: Agriculture, Livestock, Livelihood and Food Security, Tourism, Future prospects of development in the Himalaya for skill development, Employability and Entrepreneurship.

Course Outcomes:

CO1: To know the detailed study of Kashmir region for fulfilling global needs.

CO2: To know the detailed study of Uttarakhand Himalaya at local and national level.

CO3: To know Major Environmental Challenges of the Himalaya, Lower Ganga Plain at local and national level.

CO4: To know the society and culture for fulfilling global needs.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	2	1	1	1	2	1	1	1
CO2	1	3	1	2	1	1	1	1	2
CO3	2	1	1	1	1	1	2	1	2
CO4	1	2	3	1	1	1	1	2	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	1	2
CO3	3	2	1
CO4	3	1	2

Suggested Readings:

- Arvil, R. (1967): Man and Environment Crisis and Strategy of Choice, Penguin, Harmondsworth, 1967.
- ➤ Berril, N.J. (1967): Inherity the Earth- The Story of Man and Changing Planet, Forwcett, Greenwich, Connecticut, 1967.
- ➤ Bhargava, Gopal (1992): Environmental Challenges and Ecological Disaster, Mittal Publication, New Delhi.
- ➤ Botkin, D.B. (1982): Environmental Studies, Charles, E. Meril and Keller, Edward, A. Publishing Co. Columus, Ohio.
- C.S.E. (1984): The State of India's Environment: A Citizens Report, Centre for Science and Environment, New Delhi.
- ➤ Chada, S.K. (1993): Fragile Environment, Anmol Publication, New Delhi.
- ➤ Darlington, P.J. (1957): Zoo-Geography: The Geographical Distribution of Animals, Wiley, New York.
- Dasman, R.F. (1972): Environmental Conservation, John Wiley and Sons, New York.
- ➤ Detwyler, J.R. (1975): Man's Impact on Environment, John Wiley and Sons, New York.
- ➤ Khusoo, T.N.: Environmental Management Policies and Issues.
- ➤ Knowles, R. and Wareing, J.: Economic and Social Geography.
- Marsh, C. P. (1967): Man and Nature, Morvad.
- ➤ Odum, E.P.: Fundamentals of Ecology, Prentice Hall.
- Rustomji, N.K. and Ramble Charles (1990): Himalayan Environment and Culture, Indus Publishing Company, New Delhi.
- ➤ The Hindu: A Survey of Environment.
- ➤ Robinson, H. (1976): A Geography of Tourism, Macdonald & Evans Ltd., Estober, Plymouth.
- ➤ Bhatia, A.K. (1983): Tourism Development: Principles and Practices, Sterling Publishers Pvt. Ltd., New Delhi.
- ➤ Cosgrove, I. and Jackson, R. (1972); The Geography of Recreation and Leisure, Hutchinson.
- White, J. (1967): History of Tourism, Leisure Arts, London.

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- www.topper.com
- www.ncert.nic.in
- > en.m.wikipidia.org

Master of Arts (Geography) GEOEC108; Cultural Geography

Course Objectives:

To enhance the understanding of culture using key concepts of geography, to develop analytical skills to decode culture. To provide a critical understanding of the contemporary issues and the politics underlying it.

Course Contents:

UNIT I

Approaches to cultural geography: morphology of cultural landscape; representational and more-than-representational critiques for skill development, Employability.

UNIT II

Concepts: culture, politics, identity and the other issues like, space, place, landscape, ideology, hegemony, gender, class, sexuality, race, ability and caste for skill development, Employability.

UNIT III

Methodologies: reading landscapes: textuality, iconography, participant observation and interviews, participatory methods for skill development, Employability.

UNIT IV

Creation of Cultural Spaces: body, home, city, nation, and globe. Politics of Difference: caste, class, race, gender, sexuality for skill development, Employability.

Course Outcomes:

CO1: To make sense of culture for fulfilling global needs.

CO2: To Geographic epistemologies for analyzing culture at local and national level.

CO3: To develop analytical capability to read contemporary issues of culture globally.

CO4: To know the changing in culture for fulfilling global needs.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	2	1	1	2	1	1	2	1
CO2	1	3	2	1	1	2	1	1	2
CO3	2	3	2	1	2	1	1	2	1
CO4	1	2	1	1	2	3	1	1	2

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	2	1	2
CO3	3	2	1
CO4	3	2	1

Suggested Readings:

- Anderson, K., Domosh, M., Pile, S., & Domosh, N. (eds.). 2002. Handbook of cultural geograph,. Sage.
- ▶ Blunt, A. 2005. Cultural geography: cultural geographies of home. Progress in human geography, 29(4), 505-515.
- ➤ Cavallaro, D. 2001. Critical and Cultural Theory: Thematic Variations, Athlone Press, London and New Brunswick, NJ.
- Cosgrove, D. 1984. Social Formation and Symbolic Landscape, London: Croom Helm.
- ➤ Cosgrove, D., & Daniels, S. (Eds.), 1988. The Iconography of Landscape: Essays on the Symbolic Representation, Design and Use of Past Environments, Cambridge University Press.

- ➤ Duncan, J. S. 2005. The city as Text: The Politics of Landscape Interpretation in the Kandyan Kingdom, Cambridge University Press.
- ➤ Hirsch, E and Hanlon, M. 2003. The Anthropology of Landscape: perspectives on space and Place, Oxford: Clarendon press
- ➤ Lorimer, H. 2005. Cultural geography: the busyness of being more-than-representational'. Progress in human geography, 29(1), 83-94.
- ➤ Mitchell, D. 1996. 'California: The Beautiful and the Damned' from the 'Lie of the Land: Migrant Workers and the California Landscape, 13-35, Minneapolis: University of Minnesota Press
- Mitchell, D. 2000. Cultural Geography: A Critical Introduction, Blackwell
- Rose, G. 2008. Looking at Landscape: The Uneasy Pleasures of Power. In The Cultural Geography Reader (pp. 183-187), Routledge.
- ➤ Sauer, C. O. 1925. The Morphology of Landscape. University of California Publications, Geography 2, 19-54.
- ➤ Valentine, G. 2014. Social geographies: space and society, Routledge.
- ➤ Whatmore, S. 2006. Materialist returns: practising cultural geography in and for a more-than-human world, Cultural geographies, 13(4), 600-609.

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Master of Arts (Geography)

GEOCC201; Principles of Applied Climatology

Course Objectives:-

This course is intended to develop the students' knowledge about the physical principles and processes governing the weather, climate and Atmospheric circulation at global and regional scale. To upgrade the skill of students to observe weather and climatic elements with respect to physical and social changes influencing the earth system.

Course Contents:

UNIT-I

Nature and Scope of Climatology and its relationship with meteorology. The Atmospheric: Structure and composition, insolation, heat-budget of the earth. Distribution of temperature: Temporal, vertical and horizontal, Green House effect for skill development, Employability and Entrepreneurship.

UNIT-II

Distribution of atmospheric pressure and general circulation of winds: modern concept of monsoon and Jet streams, stability and instability of the atmosphere for skill development, Employability and Entrepreneurship.

UNIT-III

Climatic Phenomena: Air masses and fronts, origin, growth, classification. Fronts genesis, types and weather associated with fronts. Temperate and tropical Cyclones, types and distribution of precipitation, Global warming for skill development, Employability and Entrepreneurship.

UNIT-IV

Climatic Classifications: Koppen's Thornthwaites - A critical appraisal of each classification, Climates of the World: Tropical, Temperate and Desert. Hydro cycle for skill development, Employability and Entrepreneurship.

Course Outcomes:-

CO1: The concepts of weather and climate and correlate it with daily weather events at local and national level.

CO2: To develop the causal relations of climate with other social, economic and cultural activities for fulfilling global needs.

CO3: To utilize the techniques for modeling the climate, covering both theoretical and technical aspects for fulfilling global needs.

CO4: To know the changing in climate time to time globally.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	2	1	3	2	1	3	2	1
CO2	1	3	3	2	2	1	1	2	1
CO3	1	3	3	2	2	1	1	2	3
CO4	3	2	1	3	2	1	1	2	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1
CO3	3	2	1
CO4	3	1	1

- > Chritchfield (1989): General Climatology.
- Lal, D.S. (1998): 'Climatology', Chaitanya Publishing House, Allahabad.
- Lutgens, Federic K. &Tarbuck Edward J (1995): 'The Atmosphere: An Introduction to Meteorology', Prentice Hall, New Jersey.
- ➤ Mather, J.R. (1974): 'Climatology: Fundamentals and Applications', McGraw-Hill, New York.
- ➤ Oliver, John E. (1973): 'Climate and Mans Environment: An Introduction to Applied Climatology', John Wiley & Sons, New York, London.
- > Sarindra Singh (2005): 'Climatology', PrayagPustakBhavan, Allahabad.
- ➤ Thompson, R.D. and Allen, P. (1997): 'Applied Climatology: Principles and Practice', Routledge, London and New York.

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- www.ncert.nic.in
- > researchgate.net
- > en.m.wikipidia.org
- > www.earthonlinemedia.com

Master of Arts (Geography) GEOCC202; Contemporary Human Geography

Course Objectives:-

This course is intended to introduce current debates within human geography and develop an understanding of the contexts within which these debates emerged. To critically understand a broad range of contemporary socio-spatial issues that society experiences and undergoes. To provide a basic social, cultural, political and economic understanding from global and local perspectives to a broad range of contemporary issues.

Course Contents:

Unit-I

Introduction: Development of human geography, Relationship of man and environment. Determinism, Possibilism, Neo determinism, Basic principles - Theory of variability or action, Theory of totality or terrestrial unity. Foundational and Contemporary issues and debates, defining space and place, understanding different approaches in conceptualizing space and place for skill development, Employability and Entrepreneurship.

Unit-II

Population distribution and global patterns, world-class population transfer-causes and consequences. Socio-spatial interconnections: Place-making, processes of place making in everyday lives, identities, difference and exclusion for skill development, Employability and Entrepreneurship.

Unit-III

Economy Human Development of Economy, Stages of Development of Economy, Human Sequence of occupations, Primary economies- food gathering, hunting, timber harvesting, fisheries and early agriculture, major changes and their effects. Critical geopolitics: Territoriality and power, nationalism, citizenship and governance, conflicts for skill development, Employability and Entrepreneurship.

Unit-IV

World species- classification, characteristics, distribution. Tribes of the world- Eskimo, Khirgiz, Bushman, Masai, Semang and Pygmy. The habitat, economy and social life of Indian tribes - Bhutia, Gaddi, Tharu, Naga, Bhil, Santhal. Development Geographies: Theories of development, Re-thinking development, development in the global south for skill development, Employability and Entrepreneurship.

Course Outcomes:-

CO1: To know the contribution of the discipline of geography to social sciences for fulfilling global needs.

CO2: To Connect theory with practice at local and national level.

CO3: To analyze contemporary social issues from a geographical perspective at local and national level.

CO4: To know the development of human Geography for fulfilling global needs.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	1	3	1	1	1	2	1	2	1
CO2	2	1	3	2	2	1	2	1	2
CO3	1	2	2	3	1	2	1	2	1
CO4	3	1	1	1	2	1	2	1	2

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	2
CO2	3	2	1
CO3	3	1	2
CO4	3	1	2

- ➤ Kitchin, B and Thrift N (eds) 2009. *International Encyclopaedia of Human Geography*, Elsevier
- ➤ Benko, G and Strohmayer, U (eds) 2004. *Human Geography. A History for the 21st Century*, Routledge, London and New York.
- ➤ Cloke, P., Crang, P. and Goodwin, M. (eds.), 2014. *Introducing Human Geographies*, Third Edition, Routledge, London and New York.
- ➤ Kobayashi, A and MacKenzie, S. 1989. *Remaking Human Geography*, Routledge, London New York.
- Agnew, J.A. and Duncan, J.S. 2016. *The Wiley Companion to Human Geography*, Wiley, UK.
- ➤ Daniels, S and Lee, R. (eds) 1996. *Exploring Human Geography: A Reader*, Routledge, London and New York.

- ➤ Hubbard P, Kitchin B and Valentine G. 2008. *Key Texts in Human Geography*, Sage, London.
- Cloke, P., Philo, C., Sadler, D. 2003. *Approaching Human Geography: An Introduction to Contemporary Theoretical Debates*, Sage: London.
- ➤ Hubbard, P., Kitchin, R., Bartley, B., Fuller, D. 2005. *Thinking Geographically. Space, Theory and Contemporary Human Geography*, Continuum: London.
- Aitken, S.C, Valentine, G. 2015. Approaches to Human Geography. Philosophies, Theories, People and Practices, Sage: London, California, Delhi, Singapore.
- Agnew, J.A., Livingstone, D.J., Rogers, A. 1996. *Human Geography: An Essential Anthology*, Wiley: U.K

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- > researchgate.net
- > www.earthonlinemedia.com

Master of Arts (Geography) GEOCC203; Industrial Geography

Course Objectives:

The main objectives of this course are the description and interpretation of the location dynamics, theories, regional pattern and industrial degradation of manufacturing activities on various scales, from the local to the worldwide.

Course Content:

Unit-I

Theories of Industrial Localization: Nature, scope, and recent developments of Industrial Geography, Factors of localization of industries, Theories and models of industrial location: Weber, Loch's and Hoover for skill development, Employability and Entrepreneurship.

Unit-II

Pattern of Industries and Industrial Regions: Distributional patterns of important industries: Iron and steel, Cotton Textiles, Chemicals and Petro-chemicals, Method of delineating industrial regions, Major industrial regions of the World with special reference to North America for skill development, Employability and Entrepreneurship.

Unit-III

Degradation and Globalization: Environmental degradation caused by industries, Industrial hazards and occupational health, Impact of industries on economic development, Role of globalization on industrial sector for skill development, Employability and Entrepreneurship.

Unit-IV

Major Industrial Regions of India: Location, characteristics, chief industries and associated problems of each region, The Mumbai- Pune industrial region, The Chota Nagpur industrial region and Kolkata-Hugli Region for skill development, Employability and Entrepreneurship.

Course Outcomes:-

CO1: To assess the role location and place in development and distribution of industries for fulfilling global needs.

CO2: To understand the linkages of industrial corridors and site specific problems facing by different industrial regions at local and national level.

CO3: To understand the environmental degradation caused by Industries globally.

CO4: To understand the problems of Industrial regions in India

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	1	3	2	3	1	2	3	1	1
CO2	2	2	1	1	2	3	2	1	1
CO3	1	2	3	1	2	2	3	3	1
CO4	2	2	2	3	1	2	1	3	3

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1
CO3	3	1	2
CO4	3	2	2

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Master of Arts (Geography) GEOCC251; Remote Sensing

Course Objectives:

The course is oriented to create the art of observation, examination, determination and interpretation of various satellite and air borne spatial information. The course will acquaint the basic principles and methods of photogrammetry to students.

Course Contents:

Unit-I

Stereoscopic Vision Test. Format and stereoscopic Orientation of Aerial Photographs for skill development, Employability and Entrepreneurship.

Unit-II

Determination of scale and stereoscopic area ,Determination of Principal Point and Conjugate Principal Point, Direction of Flight line and Air Base for skill development , Employability and Entrepreneurship.

Unit-III

Calculation of traffic speed through Aerial Photographs, Calculation of Photographic coverage for a Planning Area for skill development, Employability and Entrepreneurship.

Unit-IV

Mapping Land Use change Detection. Height Determination Methods. Land use Measurement Methods. Preparation of Land cover and Land use Map. Interpretation of Aerial Photographs. Population Census with Aerial Photographs for skill development, Employability and Entrepreneurship.

Course Outcomes:-

CO1: To represent and mapping of various geo-spatial data with the help of aerial photo graphs for fulfilling global needs.

CO2: The use of remote sensing in aerial surveying at local and national level.

CO3: The use of remote sensing in photogrammetric technique at local and national level.

CO4: The use of remote sensing in land use and mapping for fulfilling global needs.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	2	2	1	1	1	3	2	2
CO2	2	2	1	1	1	2	2	1	3
CO3	1	1	1	2	2	3	1	1	3
CO4	2	2	1	1	1	2	3	1	3

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	2
CO2	3	1	2
CO3	3	2	3
CO4	3	1	2

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Master of Arts (Geography) GEOCC252; Geographical Information System

Course Objectives:

The course is oriented to acquaint the students about Geospatial-data and technology especially Geographic Information System (GIS) and its application in geographic studies. To upgrade the skill of students to Geographic Information System technique.

Course Content:

Unit-I

Fundamentals of GIS

Introduction to GIS: Definition, Information technology in geography, history and development in GIS, components of GIS, advantages of GIS over traditional techniques. Application of GIS in geographical studies.

Geographic data – human cognition of the spatial world, maps and other representation of the world. Types of information in a digital map: scale, projection and geo referencing.

Spatial Data - Geographic data and information, spatial – non-spatial data. GIS data formats, raster and vector data, their merits and demerits.

Unit-II

Lab Work

Introduction to Arc View's Modular Structure

Task Set 1: Basic software and operating system concept for skill development, Employability and Entrepreneurship.

Task Set 2: Introduction to Arc View

Projection and Cartography

Task Set 1: Basic concepts of projection.

Task Set 2: Concept of the theme in Arc View.

Task Set 3: Cartographic design concepts for skill development, Employability and Entrepreneurship.

Unit-III

Vector Data Model:

Task Set 1: The Vector data model: Points.

Task Set 2: The Vector data model: Lines and Polygons.

Task Set 3: Joining tabular data to spatial data.

Task Set 4: Creating Visualization for skill development, Employability and Entrepreneurship.

Digitizing and Data Automation

Task Set 1: Digitizing in Arc View.

Task Set 2: Creating a map.

Task Set 3: Creating a table and entering data for skill development, Employability and Entrepreneurship.

Unit-IV

Geo-coding: Matching Addresses with Locations

Task Set 1: Geo-coding for skill development, Employability and Entrepreneurship.

Spatial Analysis

Task Set 1: Classification.

Task Set 2: Distance measures and Buffers for skill development, Employability and Entrepreneurship.

Course Outcomes:-

CO1: To the knowledge of GIS technique for fulfilling global needs.

CO2: To prepare a laboratory based practical report based on geo-spatial data on specific GIS software globally.

CO3: To apply the Vector data model: Points at local and national level.

CO4: To apply Geo-coding: Matching Addresses with Locations for fulfilling global needs.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	2	2	1	1	1	3	3	3
CO2	1	1	1	2	2	1	1	2	3
CO3	1	1	2	2	1	3	1	1	2
CO4	1	3	2	1	2	1	1	2	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development		
CO1	3	1	2		
CO2	3	1	2		

CO3	3	2	1
CO4	3	2	1

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- ➤ Peuquet, D.J. and Markle, D.F "Introductory Reading in Geographical Information System", Taylor and Francis Publication, Washington, 1990.
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Master of Arts (Geography) GEOEC204; Regional Planning and Development

Course Objectives:

The course is designed to develop the knowledge about regional attributes, classification and approaches and theories involved in regional planning and development.

Course Contents:

Unit-I

Concept of Region in Geography, Nature and Scope of Regional planning, Application to planning, Concept of space, area and locational attributes. Types of region: Formal and functional; uniform and nodal, single purpose and composite regions, regional hierarchy for skill development, Employability and Entrepreneurship.

Unit-II

Types of regions and methods of regional delineation, conceptual and theoretical framework of regional planning. Planning process – Sectoral, temporal and spatial dimensions; short-term and long term perspectives of planning for skill development, Employability and Entrepreneurship.

Unit-III

Regional development strategies – concentration vs. dispersal, case studies for plans of development developing countries, Regional planning in India for skill development, Employability and Entrepreneurship.

Unit-IV

Concept of development; indicators of development; Regional Imbalances, evolution, nature and scope of town planning with special reference to India and fundamentals of Town and country planning for skill development, Employability and Entrepreneurship.

Course Outcomes:-

CO1: To the basic knowledge of nature, and scope of Regional Planning. Demarcate the differences among formal, functional and planning regions for fulfilling global needs.

CO2: To expected efficiently formulate, appreciate, apply the specific theories and plan for regional growth and development of regional planning at local and national level.

CO3: To know the regional development strategies in India and world globally.

CO4: To understand the scope of town and country planning with special reference of India.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	2	2	1	1	1	3	2	2
CO2	2	1	1	1	2	2	2	1	1
CO3	1	3	1	3	2	1	2	1	2
CO4	2	1	2	1	3	1	2	1	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	2
CO2	3	2	2
CO3	3	2	2
CO4	3	1	1

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Master of Arts (Geography) GEOEC205; Rural Geography

Course Objectives:

The course is designed to familiarize the students about general concepts, nature and issues of rural Geography. To acquaint the students about nature of rural settlement, infrastructure, morphology, infrastructure and challenges for rural development.

Unit-I

Concept and scope of rural geography; different approaches to study rural Geography; concept and significance of rural development: Indicators of rural development for skill development, Employability and Entrepreneurship.

Unit-II

Rural Settlements: Definition and characteristics; Types and patterns of rural settlements and their distribution with special reference to spacing, rural house type, based on building materials, size and shape for skill development, Employability and Entrepreneurship.

Unit-III

Rural infrastructure facilities and amenities, New Agricultural technology: Rural transportation, rural education, rural industries and rural marketing for skill development, Employability and Entrepreneurship.

Unit-IV

Critical review of rural development strategies in India; Integrated Rural Development Programme (I.R.D.P.), Community Development Programme, Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA), National Rural Health Mission (NRHM) for skill development, Employability and Entrepreneurship.

Course Outcomes:

CO1: To efficiently formulate the issues and challenges of rural settlement for fulfilling global needs.

CO2: To evaluate the suitability of different plan at local and national level.

CO3: To know about adapted rural development in varying spatial context at local and national level.

CO4: To know Critical review of rural development strategies in India for fulfilling global needs.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	2	1	3	2	1	2	2	2	2
CO2	1	1	2	2	3	2	3	2	2
CO3	1	1	2	1	2	3	3	2	1
CO4	2	1	1	3	2	2	1	1	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1
CO3	2	1	2
CO4	3	2	1

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- Clout, S.D., Rural Geography.
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Master of Arts (Geography) GEOEC206; Social Geography of India

Course Objectives:

The course helps to understand the theoretical emergence of social geography, social wellbeing, gender issues, social differentiation and regional dimensions of sociological changes. Students will be introduced to demographic, social and cultural attributes of Earth such as migration, social relations and cultural identity.

Course Contents:

Unit-I

Emergence of Social Geography; meaning, scope and significance of social geography, approaches to study of social geography; empiricist, positivist, structural and radical approaches. Social Geography as an applied branch of human geography, the affinity and relationship of social geography with other social sciences for skill development, Employability and Entrepreneurship.

Unit-II

Social Well-Being: Social well-being and its indicators, Human Development Index (HDI), inclusive growth, social segregation and ghetto formation for skill development, Employability and Entrepreneurship.

Unit-III

Gender Issues and Social Change: Gender inequality, women empowerment, women literacy and health, social change with special reference to caste and tribal groups, rural-urban divide, rural-urban interaction and social change for skill development, Employability and Entrepreneurship.

Unit-IV

Social Differentiation and Region Formation: Spatial distribution of tribes, castes and linguistic groups, relationship between social identity and economic conditions for skill development, Employability and Entrepreneurship.

Course Outcomes:

CO1: To assess the causal role of Geography in production of different social groups for fulfilling global needs.

CO2: To evaluate the emerging social spaces, stratification, social wellbeing, and issues of social justice through spatial perspective at local and national level.

CO3: To know Gender inequality, women empowerment for fulfilling global needs.

CO4: To know relationship between social identity and economic conditions at local and national level.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	1	2	2	1	1	2	2	2
CO2	1	3	2	1	1	2	3	3	2
CO3	2	2	3	2	1	1	1	2	3
CO4	1	2	2	3	2	2	2	2	2

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1
CO3	3	1	1
CO4	3	1	2

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Master of Arts (Geography) GEOEC207; Geography of Migration

Course Objectives:

This course endeavors 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 shall be evaluated.

Course Contents:

Unit-I

Migration Overview: basic concepts, data source, measures, and historical perspectives for skill development, Employability and Entrepreneurship.

Unit-II

Internal Migration: concepts, characteristics, typologies, regional patterns, explanations, and implications for skill development, Employability and Entrepreneurship.

Unit-III

International Migration: concepts, characteristics, typologies, regional patterns, explanations, and consequences for skill development, Employability and Entrepreneurship.

Unit-IV

Migration Policies and Governance: regional models across global north-global south Migration, Environment, and Climate Change linkages: floods, droughts, desertification, natural disasters; Migration, Development, and Sustainable Development Goals for skill development, Employability and Entrepreneurship

Course Outcomes:

CO1: To know about the basic concepts related to human migration for fulfilling global needs.

CO2: To conversant with the different forms of human migration, at local and national level.

CO3: To know about international Migration and consequences across geographical globally.

CO4: To appreciate the various dimensions of global environmental change and human migration for fulfilling global needs.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	1	1	2	2	1	1	1	2
CO2	1	3	1	1	1	2	1	1	1
CO3	1	1	2	3	1	1	1	1	1
CO4	2	1	1	1	3	1	1	1	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	1	1
CO3	3	1	2
CO4	3	2	1

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- ➤ Castles, S., de Haas, H. and Miller, M.J. 2014. The Age of Migration: International Population Movements in the Modern World, 5th ed. New York and London: Guilford.
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Master of Arts (Geography) GEOEC208; World Regional Geography

Course Objectives:

The course is designed to develop the knowledge about regional attributes, classification and approaches and theories involved in regional planning and development.

Course Contents:

Unit-I

Conceptual Base: Regional Geography: Concepts, Approaches, Methods and Significance; Major World Regions and blocks of macro, (meso and micro levels) on various delimitation bases especially with reference to Natural, Political, Economic, Trade and Development Regionalization for skill development, Employability and Entrepreneurship.

Unit-II

Natural Regions of the World: Physical Regions, Vegetation Regions, Climatic Regions, Biogeographical Regions and Biomes for skill development, Employability and Entrepreneurship.

Unit-III

Resource and Cultural Regions: Resource Regions, Population Regions and Cultural Regions of the world for skill development, Employability and Entrepreneurship.

Economic Regions: Agricultural Regions of the World; Industrial Regions of the World; Micro Agro-Industrial Regions of USA, Japan and China.

Unit-IV

Regional Planning and Development: Important concepts, approaches and methods of Regional Development and their application with special reference to Uttarakhand for skill development, Employability and Entrepreneurship.

Course Outcomes:

CO1: To demarcate the differences among formal, functional and planning regions for fulfilling global needs.

CO2: To expected efficiently formulate, about Bio-geographical Regions and Biomes at local and national level.

CO3: To appreciate and apply the specific theories and plan for regional growth and development for fulfilling global needs.

CO4: To know approaches and methods of regional development at local and national level.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	1	3	1	1	1	2	1	2	2
CO2	1	2	2	3	2	1	1	1	2
CO3	1	2	2	1	1	3	1	2	1
CO4	2	1	1	2	1	1	1	3	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	1	2
CO3	3	2	1
CO4	3	2	1

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- > Singh O.P.(ed.), The Himalaya: Nature, Man and Culture, 1983
- ➤ Joshi, S.C. et.al, Kumaun Himalaya, Nainital, 1983
- ➤ Joshi, S.C., Uttaranchal: Environment & Development.

- > www.britannica.com
- > www.topper.com
- > www.ncert.nic.in
- www.sciencedaily.com
- > www.cambridge.org
- > en.m.wikipidia.org
- > www.nationalgeography.com

Master of Arts (Geography) GEOCC301; Research Methodology in Geography

Course Objectives:

The aim of this course is to develop the skill of understanding about new approaches, technologies, research concepts and recent techniques and, also realize the consequences as well as preparedness.

Course Contents:

UNIT I

Meaning and Purpose of Research, Types of Research; Social Science Research, Identification of Research Question and Literature review, Preparation of Questioners; Methods and Methodology in Human Geography for skill development, Employability.

UNIT II

Scientific Method in Human Geography; Analytical Steps of the Scientific Method; The Routes of Scientific Explanation: Deductive and Inductive forms of reference; Explanation in Geography: Some Problems to provide for skill development, Employability.

UNIT III

Quantitative to Qualitative assessment in Geography; Qualitative Data Production: Interviews (Process of Interviewing. Structure interviews and informal surveys; Depth Interviewing and Working with Groups); Observation for skill development, Employability

UNIT IV

Field work in Geographical Studies; Data Creation: Census Method and Sampling Method (Random, Systematic, Stratified, Multi-Stage, Accidental and Purposive); Process of Research Report Writing to provide for skill development, Employability.

Course Outcomes:-

CO1: To prepare project on given topic varying from new approaches and technologies for fulfilling global needs.

CO2: To do field observation, understanding, identification globally.

CO3: To do the Explanation of data for fulfilling global needs.

CO4: To do the Evaluation of different mentioned aspects of Geography.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	1	1	2	1	1	1	1	1
CO2	1	3	1	1	1	1	2	1	1
CO3	2	1	3	1	1	2	1	1	1
CO4	1	2	2	2	1	1	1	3	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	2
CO2	3	2	1
CO3	3	2	2
CO4	3	1	1

Suggested Reading Books:

- 1. Dey, Ian (1993), Quantitative Data Analysis, London: Routledge.
- 2. Eyles, John and David M. Smith (1988), Qualitative Methods in Human Geography,xford : Polity Press.
- 3. Kitchin, Rob and Nicholas J. Tate (2002), Conducting Research in HumanGeography, London: Prentice Hall.
- 4. Limb, Melanie and Claire Dwyer (2001), Qualitative Methodologies for Geographers, London: Arnold.
- 5. Robinson, Guy M. (1998), Methods and Techniques in Human Geography, New York.
- 6. Scale, Clive (ed.) (2008), Social Research Methods, London: Routledge (IndiaEdition).
- 7. Somekh, Bridget and Cathy Lewin (eds.) (2005), Research Methods in the SocialSciences, New Delhi: Vistaarublications.

Master of Arts (Geography) GEOCC302, Principles of Applied Oceanography

Course Objectives:-

The aim of this course is to develop an understanding about concepts associated with hydrosphere with context to oceanic relief, surfaces and their distribution on earth. To provide the knowledge about physical principles, characteristics, oceanic deposits and processes governing the circulation and characteristics of water bodies on Earth.

Course Contents

UNIT I

Nature and Scope of Oceanography – Major features of Ocean basins, continental shelf, slop and Deep ocean basins – Bottom relief of Indian, Atlantic and Pacific Oceans for skill development, Employability and Entrepreneurship.

UNIT II

Physical and chemical properties of sea water, sources and factors affecting the distribution of

Temperature and salinity for skill development, Employability and Entrepreneurship.

UNIT III

Circulation patterns in the ocean – ocean currents, water masses, waves, tides and tsunamis, their Types and theories of origin for skill development, Employability and Entrepreneurship.

UNIT IV

Marine biological environment, bio zones – Plankton, Nekton and Benthos, ocean deposits, coral

Reef, theories of their origin, Impacts of Humans on the Marine Environment – Laws of the sea, marine resources, development and pollution, EEZ and resource utilization for skill development, Employability and Entrepreneurship.

Course Outcomes:-

Students will able to conceptualize, analyze and apply:

CO1: The concepts of oceanography and correlate it with daily ocean events at local and national level.

CO2: To develop the causal relations of ocean with other social, economic and cultural activities for fulfilling global needs.

CO3: To utilize the techniques for modeling the ocean, covering both theoretical and technical aspects for fulfilling global needs.

CO4: To know the changing in oceans with time to time globally.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	1	1	1	1	1	1	1	1
CO2	2	3	1	1	1	2	1	1	1
CO3	1	1	2	1	1	3	1	1	1
CO4	1	1	1	3	1	1	2	1	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	1
CO2	3	2	1
CO3	3	2	1
CO4	3	1	2

Suggested Reading Books:

- 1. Davis Richard, J.A. (1986): Oceanography An Introduction to Marine Environment, wm.C.Brown, Iowa.
- 2. David Ross (1973): Introduction to Oceanography.
- 3. Duxbury, C.A. and Duxbury, B. (1996): An Introduction to World's Oceans, C.Brown Iowa (2ndEd.).
- 4. Garrison, T. (2001): Oceanography An Introduction to Marine Science, Books/Cole, PacificGrove, USA.
- 5. Gross M.Grant (1987): Oceanography A view of the Earth, Prentice Hall Inc. New Jersey.
- 6. Singh Savindra (20): Oceanography, Allahabad.
- 7. Ummerkutty, A.N.P. (1985): Science of the Oceans and Human Life, National Book Trust, NewDelhi.

Master of Arts (Geography) GEOCC351; Advanced Surveying

Course Objectives:

The course aims to equip the students with principles and procedures of surveying techniques.

Course Contents:

UNIT I

Nature, Principles and types of Surveying; Surveying with the help of prismatic compass.

UNIT II

Dumpy Level (Simple & Differential levelling, Rise and Fall Methods.

UNIT III

Interpolation of Contours by Indian Clinometer, Sextant measurement (Vertical and Horizontal).

UNIT IV

Surveying with the help of Telescopic Alidade, Theodolite.

Course Outcomes:-

CO1: To apply the general principles of surveying for fulfilling global needs.

CO2: To use of surveying techniques at local and national level.

CO3: To conduct survey in any geographical area at local and national level.

CO4: To prepare of report for fulfilling global needs.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	1	1	2	1	1	1	1	1
CO ₂	1	3	1	1	1	1	2	1	1
CO3	2	1	3	1	1	2	1	1	1
CO4	1	2	2	2	1	1	1	3	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	2
CO2	3	2	1
CO3	3	2	2
CO4	3	1	1

Note:

The distribution of marks shall be follows:-

(1) Two surveying exercises20 Marks(2) Written Test20 Marks(3) Survey Camp Report20 Marks

(4) Sessional Record and Viva Voce Test 5+5 = 10 Marks

Reference:

- ➤ Barrett, E.C. and Curtis L.F.: Fundamentals of Remote Sensing and Air PhotoInterpretation.
- ➤ Burrough P.A.: Principles of Geographic Information Systems for Land ResourcesAssessment.
- ➤ Campbell, J. B. (2002): Introduction to Remote Sensing. 5th edition. Taylor and Francis, London.
- ➤ Campbell, J.: Introduction to Remote Sensing.
- ➤ Cracknell, A. and Hayes, L. (1990): Remote Sensing Year Book, Taylor and Francis, London.
- Curran, P.J. (1985): Principles of Remote Sensing, Longman, London.
- Fraser Taylor D.R.: Geographic Information Systems.
- ➤ Luder, D.: Aerial Photography Interpretation: Principles and Application.
- > Star, J. and J. Estes: Geographic Information Systems: An Introduction.

Website Sources:-

- > www.nap.edu
- www.britannia.com
- > www.satpalda.com
- www.ncert.nic.in

Master of Arts (Geography) GEOCC352; Field Work & Tour Report

Course Objectives:

The course on field work will incorporate the socio-economic and environmental survey of prescribed region. It will enhance the potential of students to visualize the geographical reality through empirical field based observation. In the background of field studies, class room teaching will present the theoretical aspects and characteristics of region under observation.

Course Contents:

The students of MA (Final) III Semester are required to study and submit their Survey reports for evaluation and viva voce examination. The duration of the main fieldwork will be up to two weeks. The fieldwork will cover the following region/ regions of India assigned by the department during the academic year. The field survey may be conducted in the following regions of India:-

- 1. Himalaya Region.
- 2. The Coastal Region.
- 3. The Desert Region.
- 4. The Deccan Plateau.
- 5. The Central Region.

Course Outcomes:

The students will be able to submit the tour reports based on field observation and able to frame answers over physical, cultural and economic aspects of region during their viva-voce examination.

Scheme of Evaluation: (out of 100)

- 1. Evaluation 70 Marks ((External)
- 2. Evaluation & Viva voce 30 Marks (Internal)

References:

- > Ahmad, E., Coastal Geomorphology
- Ahmad, E., Some Aspects of Indian Geography
- Archeer, J.E. & Dalton, T.H.(1968); Fieldwork in Geography, London.
- ➤ Glodard, R.H. (1982); Field Techniques and Research Methods in Geography, Dubuque.
- ➤ Jones, P.A. (1968); Fieldwork in Geography, London.
- > Ray and Chaudhary, Soils of India
- ➤ Singh, R.L., (Ed) India A Regional Study.
- > Spate, O.H.K., India A Regional Geography
- Wheeleso, K.S. & Harding, M. (1965); Geographical Fieldwork, London.

Website Sources:-

- www.commonwealthfund.org
- > www.britannia.com
- > www.onlinelibrary.wilky.com
- www.ncert.nic.in
- www.ncipmc.org
- > en.m.wikipidia.org

Master of Arts (Geography) GEOEC303; Population Geography

Course Objectives:

The aim of this course is to enhance the skill of students on theoretical aspects of population geography, population composition, dynamics and also population- resource relations. Rural settlement and urban settlement.

Course Contents:

UNIT I

Conceptual Design: Nature, scope, objectives, subject matter, recent trends and development of population Geography population Geography and Demography, sources of population data, their level of reliability, and problems of mapping of population data for skill development, Employability and Entrepreneurship.

UNIT II

Population distribution: Density and growth – theoretical issues, Classical and modern theories in population distribution and growth, World patterns and their determinants, Human migration: Types, Causes Consequences (with Special reference to India), Demographic transition, population resource regions for skill development, Employability and Entrepreneurship.

UNIT III

Rural settlement: Meaning, nature, types, size and scope, approaches to rural settlement geography; evolution and growth of rural settlements and their causes; distribution, spacing and internal morphology of rural settlements for skill development, Employability and Entrepreneurship.

UNIT IV

Geography of Urban Settlements: Meaning, nature, types, size and scope of urban settlement geography; origin and evolution of urban settlements and their causes; situation and location of urban settlements for skill development, Employability and Entrepreneurship.

Theories and Models in Settlement Geography: W.Christaller's Central Place Theory, August Losch's theory of market Centre's for skill development, Employability and Entrepreneurship.

Course Outcomes:-

CO1: To describe and evaluate spatial dimension of population dynamics for fulfilling global needs.

CO2: To develop understanding of the students about Population Geography at local and national level.

CO3: To enhance ideas of students about Distribution of population globally.

CO4: To understand the relation between population and resource for fulfilling global needs.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	1	1	2	1	1	1	1	1
CO2	1	3	1	1	1	1	2	1	1
CO3	2	1	3	1	1	2	1	1	1
CO4	1	2	2	2	1	1	1	1	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1
CO3	3	1	2
CO4	3	2	1

References:

- 1. Deniel P. (2002): Geography of Settlements. Rawat Publications, Jaipur and New Delhi.
- 2. Mandal R.B. (2000): Urban Geography, Concept Publishing Co., New Delhi.
- 3. Mayer H.M., Cohen (1967): Readings in Urban Geography, Central Book Depot. Allahabad.
- 4. Ramachandran R. (1991): Urbanization and Urban Systems in India, Oxford Uni. Press. Delhi.
- 5. Rykwert J. (2004): Settlements. University of Pennsylvania Press, University Park, USA.
- 6. Sidhartha K. and Mukherjee. S. (2000): Cities-Urbanizations & Urban Systems. Kisalaya Pub. Pvt. Ltd., New Delhi.
- 7. Singh, R.L. (eds.) (1973): Rural Settlements in Monsoon Asia, National Geographical Society of India, Varanasi.
- 8. 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.

Master of Arts (Geography) GEOEC304; Settlement Geography

Course Objectives:

The aim of this course is to enhance the skill of students on theoretical aspects of Settlement geography, rural settlement composition.

Course Contents:

UNIT I

Definition and scope, Approaches to study the settlement geography, Archeological finds and settlements-Mesopotamia, the Nile valley, the Indus valley, Place names versus settlements, The rural urban continuum.

UNIT II

Characteristics of rural settlements, Distribution of rural settlements with reference to size and spacing, Types and patterns of rural settlements and their cause and effect relationships.

UNIT III

Regularity in land use around settlements – Von Thunen Model, Theories explaining the internal structure of cities- The concentric ring theory, the multiple nuclei theory, Functional classification of urban centre's – Harris and Nelson.

UNIT IV

Rural service centre, Theory of Chris taller and its application, Theory of Losch and its application, Settlement planning.

Course Outcomes:-

CO1: To describe and evaluate spatial dimension of settlement dynamics.

CO2: To understand the development of Rural Settlement.

CO3: To develop knowledge about Urban settlement

CO4: To understand about service centers and application in settlement planning.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	1	1	1	1	1	1	1	1
CO2	2	3	1	1	1	2	1	1	1
CO3	1	1	2	1	1	3	1	1	1
CO4	1	1	1	3	1	1	2	1	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	1
CO2	3	2	1
CO3	3	2	1
CO4	3	1	2

Suggested Readings:

- ➤ Deniel P. (2002): Geography of Settlements. Rawat Publications, Jaipur and New Delhi.
- Mandal R.B. (2000): Urban Geography, Concept Publishing Co., New Delhi.
- Mayer H.M., Cohen (1967): Readings in Urban Geography, Central Book Depot. Allahabad.
- Ramachandran R. (1991): Urbanization and Urban Systems in India, Oxford Uni. Press. Delhi.
- Rykwert J. (2004): Settlements. University of Pennsylvania Press, University Park, USA.
- ➤ Sidhartha K. and Mukherjee. S. (2000): Cities-Urbanizations & Urban Systems. Kisalaya Pub. Pvt. Ltd., New Delhi.
- ➤ 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.

➤ Singh, R.L. (eds.) (1973): Rural Settlements in Monsoon Asia, National Geographical Society of India, Varanasi.

Website Sources:-

- www.researchgate.com
- www.britannia.com
- > www.questionpro.com
- www.ncert.nic.in
- > en.m.wikipidia.org

Master of Arts (Geography) GEOEC305; Recent Advances in Geography

Course Objectives:

The objectives of this course is to familiarize and acquaint with contemporary and advanced concepts, ideas, approaches, philosophy and models of Geography.

Course Contents:

UNIT I

Recent Conceptual Development in Geography: Philosophical Issue – Positivism, Behaviouralism, Phenomenology, Idealism, Existentialism and Humanistic Geography, Spatial Justice, Radicalism &Postmodernism for skill development, Employability and Entrepreneurship.

UNIT II

Recent Methodological Development in Geography: Quantitative Revolution and use of Statistical Techniques. To Use of Hardware and Software Technologies in data analysis and mapping, use of models and paradigms in geography to provide for skill development, Employability.

UNIT III

Use of Modern Tools in Geography: Remote Sensing and GIS and GPS. Scientific Methods in Geographical Research: Hypothesis Testing, Problem Solving approach in Geography, Project Formulation and Project Evaluation Techniques for skill development, Employability and Entrepreneurship.

UNIT IV

Recent Issues in Indian Geography: Post Colonialism and Indian Geography, Trends of Geographical Researches in India, Prospects of Professional Opportunities in Geography, Future of Indian Geography, Problems, Perspectives and Prospects to provide for skill development, Employability and Entrepreneurship.

Course Outcomes:-

CO1: To know and apply the recent theoretical and philosophical aspects of Geography for fulfilling global needs.

CO2: To know and apply the recent approaches of Geography at local and national level.

CO3: To evaluate the various spatial dimensions globally.

CO4: To understand recent issues, trends, problems and prospects in Geography for fulfilling global needs.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	1	1	1	1	1	1	1	1
CO2	1	2	1	1	1	1	1	1	1
CO3	1	1	3	1	1	1	1	1	1
CO4	1	1	1	2	1	1	1	1	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	2
CO2	3	2	1
CO3	3	2	2
CO4	3	1	1

Suggested Reading Books:

- 1. Adams, P., Steven, H. and Karel, T. (eds.) (2001): Texture of Place. Exploring HumanisticGeographies. University of Minnesota Press, Minneapolis.
- 2. Anderson, K., Domosh, M., Pile, S. and Thrift, N. (eds.) (2003): Handbook of CulturalGeography. Sage Publications, London.
- 3. Barnes, T. and Gregory, D. (eds.) (1997): Readings in Human Geography: The Poetics and Politics of Inquiry. Arnold, London.
- 4. Bunkše, E. V. (2004): Geography and the Art of Life. John Hopkins University Press, Baltimore.
- 5. Buttimer, A. (1971): Society and Milieu in the French Geographic Tradition. RandMcNally, Chicago.
- 6. Daniels, P., Bradshaw, M., Shaw, D. and Sidaway, J. (2000): An Introduction to HumanGeography. Issues for the 21st Century. Prentice Hall, London.

7.

Master of Arts (Geography) GEOEC306, Urban Geography

Course Objectives:

The course is designed to familiarize the students about general concepts, nature and issues of Urban Geography. To acquaint the students about nature of urban Geography, infrastructure, morphology, infrastructure and challenges for urban development.

Course Contents: UNIT I

Internal Structure of Cities: Meaning, scope and significance of Urban Geography; urban morphology and land use patterns, classical models of urban growth and evolution of functional zones - Burgess's Concentric Zone Theory; Hoyt's Sectoral Model; Harris and Ullman's Multiple Nuclei Model – formulation, salient features and critical evaluation of these models; CBD – meaning, internal structure, characteristic features and method of its delineation for skill development, Employability and Entrepreneurship.

UNIT II

City – Surrounding Relations:- The urban economic base – terminology, concepts, geographic qualities of the basic, non – basic concepts; the city's spheres of influence (Umland) – methods of its determination; rural – urban fringe – conceptual explanation, internal structure, characteristic features to provide for skill development, Employability and Entrepreneurship.

UNIT III

Settlement Theories and Concepts:- The study of Walter Christaller" s Central Place Theory and August" sLosh settlement theory in the following heads - Initial formulation of the model and later developments; Salient features of the model and its applicability; Losch's Theory of settlement – generalization and development of Central Place Model by August Losch; Rank-Size Rule and Law of Primate City to provide for skill development, Employability and Entrepreneurship.

UNIT IV

Urbanization: Urbanization as a process of transformation-demographic process, economic process and socio-cultural process. Spatial pattern and trends of urbanization in India, patterns of urban growth in India - decadal, regional, different size classes of towns (I - VI) for skill development, Employability and Entrepreneurship.

Course Outcomes:-

CO1: To evaluate the structure, morphology, pattern and dimensions of changes of urban places and cities for fulfilling global needs.

CO2: To know about surrounding relations of city at local and national level.

CO3: To know about Settlement Theories and Concepts for fulfilling global needs.

CO4: To know about Process of transformation-demographic process at local and national Level.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	1	1	2	1	1	1	1	1
CO2	1	3	1	1	1	1	2	1	1
CO3	2	1	3	1	1	2	1	1	1
CO4	1	2	2	2	1	1	1	3	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	2
CO2	3	2	1
CO3	3	2	2
CO4	3	1	1

Suggested Readings:

- Alam, S.M., Hyderabad-secundarabad Twin Cities, Asia Publishing House, Bombay.
- ➤ Barry, B.J.L and Horton, F.F., Geographic perspectives on Urban Systems, Prentice Hall, Englewood Cliff, New Jersy, 1970.
- ➤ BeaujeuGarnier, J., Chabot, G., Urban Geography, London, 1969.
- ➤ Carter, Harold, The Study of Urban Geography, Edward Arnold Publishers, London. Dickinson, R.E., 1964, City and Region, Routledge, London.
- ➤ Gibbs, J.P., Urban Research Methods, New Jersey, 1961 Hall, T., Urban Geography, London, 1988.

Website Sources:-

- www.researchgate.com
- > www.britannia.com
- www.questionpro.com
- www.ncert.nic.in
- > en.m.wikipidia.org

Master of Arts (Geography) GEOEC307; Geography of South Asia

Course Objectives:

This course aims to explore South Asia as a region and a concept. Examine its geostrategic significance. Understand it in global context.

Course Contents:

UNIT I

South Asia as a region: geography, polity, history and economy; South Asia as a concept

UNIT II

Social formations in South Asia: Caste, religion, gender and sexuality, kinship and marriage

UNIT III

South Asian Urbanisms and Urbanization: Origins and post-colonial development and urbanization, Neo liberal globalization/urbanization.

UNIT **IV**

South Asia: Geo Strategic space, Indian Ocean Region and evolving role of the Indo-Pacific, Expanding Geography

South Asia in global context: migration and Diaspora, security and regional cooperation.

Course Outcomes:-

CO1: To understand the dimensions of South Asia as a region for fulfilling global needs.

CO2: To know about distinct location in International Politics at local and national level.

CO3: To Representations of South Asia as an identity globally.

CO4: To Understand about migration and Diaspora and regional cooperation at local and national level.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	1	1	1	1	1	1	1	1
CO2	2	3	1	1	1	2	1	1	1
CO3	1	1	2	1	1	3	1	1	1
CO4	1	1	1	3	1	1	2	1	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	1
CO2	3	2	1
CO3	3	2	1
CO4	3	1	2

Suggested Readings:

- Ahmed, A. 2009. Geography of the south Asian subcontinent: A critical approach, Concept Publishing Company.
- Anjaria, J. S., and McFarlane, C. (eds.), 2011. Urban navigations: Politics, space and the city in South Asia, Routledge.
- ➤ Batra, A. 2012. Regional Economic Integration in South Asia: Trapped in Conflict? (Vol. 64), Routledge.
- ➤ Chattopadhyaya, H., and Sarkar, S. K. (eds.), 2003. Ethnic Composition and Crisis in South Asia: India (Vol. 1), Global Vision Publishing House.
- Hagerty, D. T. 2005. South Asia in world politics, Rowman& Littlefield Publishers.
- ➤ Hirst, J. G. S., and Zavos, J. 2013. Religious traditions in modern South Asia, Routledge.

- ➤ Jain, B. M. 2010. India in the new South Asia: strategic, military and economic concerns in the age of nuclear diplomacy (Vol. 45), IB Tauris.
- Mathur, S. K. 2007. Global Economic Trends and South Asia, ICFAI Books.
- ➤ Mitra, A. P., and Sharma, C. (eds.), 2012. Global environmental changes in South Asia: a regional perspective, Springer Science & Business Media.
- ➤ Schug, G. R., and Walimbe, S. R. 2016. A companion to South Asia in the past (Vol. 31), John Wiley & Sons.
- ➤ Sharma, S. L., and Oommen, T. K. (eds.), 2000. Nation and National Identity in South Asia, Orient Blackswan.
- ➤ Sundaram, C., Sugata Bose and Ayesha Jalal, 2005. Modern South Asia: History, Culture, Political Economy, Contemporary South Asia Abingdon, 14(2), 234
- ➤ Tewari, S., and Khanijo, R. (eds.), 2016. The Indo Pacific Region: Security Dynamics and Challenges. Vij Books India Pvt Ltd.
- ➤ Warikoo, K. (ed.), 2009. Himalayan frontiers of India: historical, geo-political and strategic perspectives, Routledge.

Website Sources:

- www.researchgate.com
- www.britannia.com
- www.questionpro.com
- www.ncert.nic.in
- > en.m.wikipidia.org

Master of Arts (Geography) GEOOE301; Disaster Management

Course Objectives:

This course aims to provide students an understanding to the concepts and aspects of disaster and its relationship with development. To ensure awareness of Disaster Risk Reduction (DRR) approaches among students. To assist students develop ability to respond to their environment with potential response to disaster.

Course Contents:

UNIT I

Fundamentals of Disaster Management: The significance of disaster, Disaster threat, National disaster management policy, Major requirements for coping with disaster, Disaster and disaster management cycle.

UNIT II

Long term Measures: Prevention, Mitigation, Preparedness, Disaster and development, Disaster legislature, Counter disaster resources, Disaster management plans, Utilization of resources.

UNIT III

Response to Disaster Impact: Response; Search, Rescue and Evacuation, Logistic; Incident command system.

UNIT IV

Major Post impact Factors: Recovery, Post disaster review and damage assessment, Relief, Rehabilitation and Restructuring.

Regional Pattern of Disaster Management: International disaster assistance, Leadership in disaster, Organization, Disaster scenario of Uttarakhand, Disaster management system in Uttarakhand

Course Outcomes:

CO1: To identify the nature and causes of disaster for fulfilling global needs.

CO2: To apply the disaster risk reduction mechanism at local and national level.

CO3: To Understand the Response; Search, Rescue and Evacuation globally.

CO4: To know about Post disaster review and damage assessment at local and national level.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	1	1	1	1	1	1	1	1
CO2	2	3	1	1	1	2	1	1	1
CO3	1	1	2	1	1	3	1	1	1
CO4	1	1	1	3	1	1	2	1	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	1
CO2	3	2	1
CO3	3	2	1
CO4	3	1	2

Suggested Readings:

- Satish Modh, Introduction to Disaster Management, Macmillan Publisher India Ltd
- ➤ Alexander David, Introduction in 'Confronting Catastrophe', Oxford University Press
- ➤ Blaikie, P, Cannon T, Davis I, Wisner B 1997. At Risk Natural Hazards, Peoples' Vulnerability and Disasters, Routledge.
- ➤ Damon P. Coppola, Introduction to International Disaster Management, Butterworth-Heinemann,
- ➤ Singhal J.P. "Disaster Management", Laxmi Publications. ISBN-10: 9380386427 ISBN-13: 978-9380386423
- Tushar Bhattacharya, "Disaster Science and Management", McGraw Hill India Education Pvt. Ltd., ISBN-10: 1259007367, ISBN-13: 978-1259007361]
- ➤ Gupta Anil K, Sreeja S. Nair. Environmental Knowledge for Disaster Risk Management, NIDM, New Delhi
- ➤ KapurAnu Vulnerable India: A Geographical Study of Disasters, IIAS and Sage Publishers, New Delhi.
- Carter, Nick. Disaster Management: A Disaster Manager's Handbook. Asian Development Bank, Manila Philippines.
- ➤ Cuny, F. Development and Disasters, Oxford University Press. Document on World Summit on Sustainable Development.
- ➤ Govt. of India: Disaster Management Act 2005, Government of India, New Delhi. Government of India, 2009.
- > Sreeja S. Nair. Environmental Knowledge for Disaster Risk Management, NIDM, New Delhi Indian Journal of Social Work.
- > Special Issue on Psychosocial Aspects of Disasters, Volume 63, Issue 2, April.

Websites:

- 1. http://nidm.gov.in/
- 2. http://nidmssp.in
- 3. http://www.drishtiias.com/upsc-exam-gs-resources-COMMUNITY-BASED-DISASTER-MANAGEMENT

Master of Arts (Geography) GEOOE302; Heritage Conservation

Course Objectives:

This course aims to critically understand the meaning of heritage and the relevance of heritage conservation. To understand how policies at the global level and at national levels shape conservation practices. To appreciate the different meanings of heritage and particularly how diverse communities understand, practice and preserve heritage.

Course Contents:

UNIT I

Introduction: Concept of heritage, different perspectives on heritage culture and history, terms, definitions and trope.

UNIT II

The Content of Heritage: Global perspectives of heritage, the world heritage concept, Implementation of World Heritage Convention, Broadening the representation and meaning of heritage-Intangible and tangible heritage.

UNIT III

Conserving Heritage: Heritage complexities, tensions and ethical challenges, conservation and management of cultural and natural heritage, heritage and socio-economic development, community based heritage work.

UNIT IV

Heritage Conservation with Particular Reference to India: Managing and interpreting heritage in India, representing complicated and diverse heritages of India, government of India policies and programs on heritage conservation.

Course Outcomes:

CO1: To identify the nature and causes of disaster for fulfilling global needs.

CO2: To apply the disaster risk reduction mechanism at local and national level.

CO3: To Conserving Heritage management of cultural and natural heritage at local and national level.

CO4: To know about Managing and interpreting heritage in India for fulfilling global needs

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	1	1	1	1	1	1	1	1
CO2	2	3	1	1	1	2	1	1	1
CO3	1	1	2	1	1	3	1	1	1
CO4	1	1	1	3	1	1	2	1	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	1
CO2	3	2	1
CO3	3	2	1
CO4	3	1	2

Suggested Readings:

- ➤ Lowenthal, D. 2003. The Past is a Foreign Country, Cambridge University Press: UK, UNESCO World Heritage Convention 1972.
- whc.unesco.org/en/globalstrategy/#analysiswhc.unesco.org/en/criteria/
- ➤ UNESCO, 2003. Intangible Heritage Convention.
- Rodney Harrison, 2013. Heritage: Critical Approaches, Routledge, London.
- ➤ Harold, Kalman, 2014. Heritage Planning: Principles and Process, Routledge, New York.
- Laurajane Smith, 2006. Uses of Heritage, Routledge, London.
- Boym, S. 2002. The Future of Nostalgia, Basic Books, Case, New York.
- ➤ Miles Glendinning, 2013. The Conservation Movement: A History of Architectural Preservation, Routledge, London and New York.

- ➤ Chitty, G. 2017. Heritage, Conservation and Communities. Engagement, Participation and Capacity Building, Routledge, London and New York.
- ➤ Silva, K.D., and Chapagain, N.K. (eds) 2013. Asian Heritage Management. Contexts, Concerns, Prospects, Routledge, London and New York.

Websites:

- 4. http://nidm.gov.in/
- 5. http://nidmssp.in
- 6. http://www.drishtiias.com/upsc-exam-gs-resources-community-based-disaster-management

Master of Arts (Geography) GEOCC401; Agricultural Geography

Course Objectives:

The objective of this course is to acquaint with theoretical approaches, factors, theories, models and major challenges of agriculture with spatial dimensions.

Course Contents:

Unit-I

Nature, scope and significance of Agricultural Geography, Approaches to the study of agricultural Geography: Sources of agricultural data, Agricultural Infrastructure etc.

Unit-II

Determinants of agricultural land use-Physical, cultural, Land holding and land tenure systems. Agricultural regionalization; cropping pattern, intensity of cropping, diversification, efficiency and productivity, crop combination regions Regional pattern of Productivities in India.

Unit-III

Theories of agricultural location based on several multi-dimensioned factors: von Thunen's theory of agricultural location and Whittlesey's classification of agricultural regions. Land use and land capability.

Unit-IV

Contemporary issues; Food, nutrition and hunger, food security, drought and food security. Environmental degradation, Employment in the agricultural sector: landless labourers, women, children and other agricultural activities.

Course Outcomes:

CO1: To evaluate the agricultural dynamics includes land use.

CO2: To know about agricultural system.

CO3: To know about theories of agricultural location, major drawbacks in agricultural development.

CO4: To evaluate the contemporary issues; Food, nutrition and hunger, food security, drought.

PO-CO Mapping (Please 3, 2, 1 wherever required)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	1	1	2	1	1	1	1	1

CO2	1	3	1	1	1	1	2	1	1
CO3	2	1	3	1	1	2	1	1	1
CO4	1	2	2	2	1	1	1	3	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	2
CO2	3	2	1
CO3	3	2	2

Suggested Readings:

- ➤ Ali Mohammad (1978); Studies in Agricultural Geography, New Delhi.
- Ali Mohammad., Food Production and Food Problem in India, N. Delhi.
- Duckhan, A.N. and Masfield, G.B. (1970); Farming Systems of the World, London.
- > Griggs, D.G. (1964); An Introduction to Agricultural Geography.
- Husain, Majid, Agricultural Geography, New Delhi.
- ➤ John, R, Tarrant (1978); Agricultural Geography.
- Md.Noor (1967), Perspectives in Agricultural Geography, New Delhi.
- Morgan, W.B. & Munton, P.J.C. (1971), Agricultural Geography, London.
- > Shafi. M. (2000); Agricultural Geography of South Asia, Macmillon, N. Delhi.
- ➤ Singh, J. & Dhillon, S.S. (1970); Agricultural Geography.
- Symons, L. (1967), Agricultural Geography, London.
- ➤ Wrigley. G. (1979); Tropical Agriculture.

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- www.researchgate.com
- www.britannia.com
- www.onlinelibrary.wilky.com
- www.ncert.nic.in
- > en.m.wikipidia.org

Master of Arts (Geography) GEOCC402; Geography of Environment and Ecology

Course Objectives:

The objective of this course is to various dimensions of the ecosystems, their spatial distribution. Anthropogenic interventions and resultant impacts on various ecosystems. Understanding of environmental governance.

Course Contents:

Unit-I

Environment and Ecosystem: Concepts and approaches, global environmental problems and sustainable development.

Unit-II

Urban Environmental Problems and their Management: Air, water and solid waste.

Unit-III

Desert and Coastal Ecosystems: Desertification-process and patterns, management strategies, issues and problems in coastal ecosystem, mangroves, integrated coastal zone management.

Unit-IV

Mountain Ecosystems: Mountain ecology, risks and vulnerabilities, highland-lowland interactive systems, biodiversity and conservation. Environmental Governance: Environmental policies and programs, environmental education and legislation.

Course Outcomes:

CO1: To know the Concepts and approaches, various aspects of ecological degradation and evolved.

CO2: To know about environmental problems and their management generate the enthusiasm for protection.

CO3: To evaluate planning, preservation and sustainable management of environment.

CO4: To know about environmental education and legislation.

PO-CO Mapping (Please 3, 2, 1 wherever required)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	2	1	2	2	1	1	2	1	1
CO2	3	2	1	2	1	1	2	2	1

CO3	2	2	1	2	1	2	1	1	1
CO4	1	3	2	2	1	1	2	1	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	1	1	1
CO3	2	1	1

Suggested Readings:

- Alexander, Mike. 2008. Management planning for nature conservation: A theoretical basis & practical guide, Springer.
- ➤ Balakrishnan, M., 1998. Environmental Problems and Prospects in India, in Das, R.C., et. al. Oxford & IBH Pub., New Delhi.
- ➤ Consensus Study Report, 2005. Valuing Ecosystem Services: Toward Better Environmental Decision-Making, National Research Council, Division on Earth and Life Studies, Water Science and Technology Board, Committee on Assessing and Valuing the Services of Aquatic and Related Terrestrial Ecosystems. National Academies Press, Washington.
- ➤ Das, R. C., 1998. The Environmental Divide: The Dilemma of Developing Countries, A.P.H. Pub., New Delhi.
- Freedman, Bill. 1995. Environmental Ecology: The Ecological Effects of Pollution, Disturbance, and Other Stresses, Academic Press. London.
- ➤ Gole, P., 2001. Nature Conservation and Sustainable Development in India, Rawat Pub., Jaipur.
- ➤ Hooja, R., et. al., (ed.) 1999. Desert, Drought and Development: Studies in Resource Management and Sustainability, Rawat Pub, Jaipur
- Hussain, M., (ed.) 1996. Environmental Management in India, Rawat Pub., Jaipur
- Munn, T., (ed.) 2001. Encyclopaedia of Global Environmental Change, John Wiley & Sons, West Sussex 7.

- Ramakrishanan, P. S. 1997. Conservation and Management of Biological Resources in Himalaya, Oxford & IBH Pub., New Delhi.
- > Singh Savindra, 2015. Paryavaran Bhoogol. Prayag Pushtak Bhawan, Allahabad (Hindi).
- > Singh, R.B., (ed.) 1990. Environmental Geography, Heritage Pub., New Delhi.

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- > www.britannia.com
- www.onlinelibrary.wilky.com
- www.ncert.nic.in
- > en.m.wikipidia.org

Master of Arts (Geography) GEOCC451; Seminar/ Workshop/ Paper Presentation

Course Objectives:

The students will be able to know how to write a Paper / Paper Presentation

The students will be required to select any one of the topics allotted them by the Department. The Topic will be related to the disciplines already studied by students in the all semesters as core or elective courses. The assessment of the presentation of the students/examinees will be done by the external and internal examiners appointed by the Convener/ Head of the Department/University.

Master of Arts (Geography) GEORC452; Dissertation & Viva-Voce

Course Objectives:

The students will be able to know how to write a project report / dissertation.

Note:

The students under the supervision of a faculty member will select a topic from his/her field of specialization for the dissertation work. The dissertation shall be fieldwork based start. It will contain at least 70-100 pages including maps and diagrams. The dissertation report duly signed by the supervisor concerned is submitted to the Department before commencement of the theory examination of the University or as per instructions given by the University. There shall be internal/external viva voce on dissertation. The viva-voce will be internal/external and shall be conducted before submitting the dissertation to the University. The student will present his/ her findings before the audience of department (teachers and P.G. students). The questions will be asked by the faculty members and students. The supervisor will act as an internal examiner, and the internal marks will be awarded by him/ her. The distribution of marks for dissertation course will be as follows:

Scheme of Evaluation: (out of 100)

- 1. Evaluation & Viva-Voce- 70 Marks ((External)
- 2. Evaluation 30 Marks (Internal)

Suggested Readings:

- Archer J.E. & dalton T.H. (1968): The fields work in Geography, E.t. Bats ford Ltd., London.
- ➤ Haring, Lloyed (1975): Scientific Geographic Research WC.Brow Company USA.
- ➤ Johnes, P.A. (2008): Field Work in Geography, Longman.
- ➤ Kothari C.R.(1996): Research Methodology, Vishwas Prakashan, New Delhi
- Misra R.P. (1991): Research Methodology in Geography, concept pub. New Delhi.

Website Sources:-

- www.physicalgeography.net
- > en.m.wikipedia.org
- www.britannica.com
- www.topper.com
- > climate.ncsu.edu
- > science.jrank.org

Master of Arts (Geography) GEOEC403; Modern Concept in Geography

Course Objectives:

The objective of this course is to familiarize and acquaint with contemporary and advanced concepts, ideas, approaches, philosophy and models of Geography.

Course Contents:

Unit- I

Recent trends: Philosophical Issue – Positivism, Behaviouralism, Phenomenology, Idealism, Existentialism and Humanistic Geography, Spatial Justice, Radicalism & Postmodernism.

Unit-II

Recent Methodological Development in Geography: Quantitative Revolution and use of Statistical Techniques. Use of Hardware and Software Technologies in data analysis and mapping, Models and paradigms in geography.

Unit-III

Use of Modern Technology in Geography: Remote Sensing and GIS and GPS. Hypothesis Testing, Problem Solving approach in Geography, Project Formulation and Project Evaluation Techniques.

Unit-IV

Recent Issues in Indian Geography: Trends of Geographical Researches in India, Prospects of Professional Opportunities in Geography, Future of Indian Geography, Problems and Prospects.

Course Outcomes:-

CO1: To know and apply the recent theoretical and philosophical aspects of Geography.

CO2: The use of Hardware and Software Technologies in data analysis and evaluate the various spatial dimensions.

CO3: To know about Remote Sensing and GIS and GPS.

CO4: To evaluate recent Issues in Indian Geography and Future of Indian Geography, Problems and Prospects.

PO-CO Mapping (Please 3, 2, 1 wherever required)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	2	1	3	2	2	1	1	2	1
CO2	3	1	2	1	2	1	1	1	1
CO3	2	2	1	2	1	2	2	1	1
CO4	1	2	2	1	2	1	1	1	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	2
CO2	3	1	1
CO3	3	2	2

Suggested Readings:

- Adams, P., Steven, H. and Karel, T. (eds.) (2001): Texture of Place. Exploring Humanistic Geographies. University of Minnesota Press, Minneapolis.
- Anderson, K., Domosh, M., Pile, S. and Thrift, N. (eds.) (2003): Handbook of Cultural Geography. Sage Publications, London.
- ➤ Barnes, T. and Gregory, D. (eds.) (1997): Readings in Human Geography: The Poetics and Politics of Inquiry. Arnold, London.
- ➤ Bunkše, E. V. (2004): Geography and the Art of Life. John Hopkins University Press, Baltimore.
- ➤ Buttimer, A. (1971): Society and Milieu in the French Geographic Tradition. Rand McNally, Chicago.
- ➤ Daniels, P., Bradshaw, M., Shaw, D. and Sidaway, J. (2000): An Introduction to Human Geography. Issues for the 21st Century, Prentice Hall, London.

Website Sources:-

- > www.researchgate.com
- www.britannia.com
- www.topper.com
- > www.ncert.nic.in
- > en.m.wikipidia.org

Master of Arts (Geography) GEOEC404; Political Geography

Course Objectives:

The course will explain the historical evolution, of discipline of Political Geography. It will help to understand about theoretical models related to geopolitics and geo-strategy. It will provide the knowledge about political attributes that evolved with territorial structure and geographic influence like state, nation, boundary, elections, and frontier of world in general and India in particular.

Course Contents:

Unit-I

Definition, Nature, scope, subject matter and recent development in political Geography; geopolitics, global strategic views (Heartland and Rimland theories); major schools of political thought.

Unit-II

Geographic Elements and the State: Physical Elements; Human elements; Economic elements; Political Geography and environment interface.

Unit-III

Themes in Political Geography: State, Nation, Nation-State and Nation-building, Frontiers and boundaries, Colonialism, decolonization, Neocolonialism, Federalism and other forms of governance. Conflicts and Co-operation. Geo-political significance of Indian Ocean: Political Geography of SAARC Region.

Unit-IV

Political Geography of contemporary India with special reference to: The changing political map of India, centripetal and centrifugal forces; Inter-state issues and conflict resolutions in surgency in border states; Emergence of New States; Federal India: Unity in Diversity.

Course Outcomes:-

CO1: To evaluate the geographical bases of political studies.

CO2: To evaluate and correlate different theories with contemporary geopolitical and geostrategic issues.

CO3: To understand about historical evolution of discipline of Political Geography and develop understanding about theoretical models related to geopolitics and geo-strategy.

CO4: To develop understanding about political attributes that evolved with territorial structure, geographic influence, understand Political Geography of contemporary India.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	2	1	2	2	1	2	1	1
CO2	1	1	3	1	2	2	2	1	1
CO3	2	2	1	1	1	2	1	2	1
CO4	3	2	1	1	2	1	1	1	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	2
CO2	3	1	1
CO3	3	1	1

Suggested Readings:

- Deshpande C.D (1992): India-A-Regional Interpretation Northern Book Centre, New Delhi.
- ➤ Dikshit, R.D. Political Geography (1996): A Contemporary Perspective. Tata McGraw Hill New Delhi.
- ➤ Dikshit, R.D. Political geography (1999): A Century of progress, Sage, New Delhi.
- Fisher Charles A. (1968): Essays in Political Geography, Mehthuen, Landon.
- ➤ John R. Short (1982): An introduction to Political Geography Routledge, London.
- Moddie, A.E: Geography Behind Politics Hutchinson, London, Latest edition.
- ➤ Pnanikkar K.M. (1959): Geographical Factors in Indian History: 2 Vols. Asia PublishingHouse, Bombay.
- ➤ Pounds N.J.G. (1972): Political Geography. McGraw Hill, New York.
- > Prescott. J.R.V.: The Geography of Frontiers and Boundaries Aldine, Chicago.
- ➤ Sukhwal, B.L. (1968): Modern Political Geography of India Sterling Publishers, New Delhi.
- > Taylor, Peter (1985): Political Geography Longman, London.

Website Sources:-

- www.researchgate.com
- > www.britannia.com
- www.questionpro.com
- www.ncert.nic.in
- > en.m.wikipidia.org

Master of Arts (Geography) GEOEC405; Geography of Health

Course Objectives:

Students will be familiarized with different factors such as physical, social, economic, environmental and their impacts on diseases; to create awareness about ecology and health care planning also.

Course Contents:

Unit- I

Nature, scope and significance of Geography of health, Development of Geography of Health; its distinction from medical science. Geographical factor affecting human health and diseases – Physical factors (relief, climate, soil and vegetation), social factors (population density and poverty), economic factors (food and nutrition) and environmental factors (urbanization and noise pollution and solid waste).

Unit-II

Classification of diseases: genetic, communicable and non-communicable; occupational and deficiency diseases; WHO classification of diseases; pattern of world distribution of major diseases-malaria, tuberculosis, cardiovascular, cancer and AIDS.

Unit-III

Ecology, etiology and transmission of major diseases: cholera, malaria, tuberculosis, hepatitis, leprosy, cardiovascular, cancer, AIDS and STDS; Spread of diseases and their causes; Deficiency, disorders and problems of mal nutrition in India.

Unit-IV

Health Care Planning and Policies; availability, accessibility and utilization of health care services; Primary health care; Inequalities in health care services in India; family welfare, immunization, national disease eradication, and Health for All Programmes.

Course Outcomes:

CO1: To demonstrate the ability to analyze, interpret.

CO2: The conclusion about role of geography in origin and spread of major disease.

CO3: The role of health care planning.

CO4: To know about primary health care; Inequalities in health care services in India.

PO-CO Mapping (Please 3, 2, 1 wherever required)

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9

CO1	2	1	2	1	2	1	1	1	1
CO2	2	2	3	1	1	2	1	1	1
CO3	2	2	3	2	1	2	1	1	1
CO4	1	2	1	3	2	1	1	2	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development		
CO1	3	2	2		
CO2	3	2	1		
CO3	3	1	1		

Suggested Readings:

- Cliff, A. & Haggett, P. (1989). Atlas of Disease Distribution, Basil Blackwell, Oxford.
- Digby, A, & Stewart, L. (eds.) (1996). Gender, Health and Welfare, Routledge, New York.
- ➤ Fouberg, E.H., Murphy, A.B., H. J. de Blij. (2009). Human Geography: People, Place, and Culture, Wiley and Sons, Eagle Lake.
- ➤ Hardill, I., Graham. D.T., Kofman, E. (2001). Human geography of the UK: an introduction, Routledge, N.Y.
- ➤ Hazara, J. (ed) (1997). Health Care Planning in Developing Countries, University of Calcutta, Kolkata.
- > Knox, P.L. (1975). Social Well-being: A Spatial Perspective, Oxford University Press
- Learmonth, A.T.A. (1978). Patterns of Disease and Hunger, a Study in Medical Geography, Davisd and Charls, Victoria.
- May, J.M. (1970). The World Atlas of Diseases, National Book Trust, New Delhi.

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- www.britannia.com
- > www.onlinelibrary.wilky.com
- www.ncert.nic.in
- > en.m.wikipidia.or

Master of Arts (Geography)

GEOEC406; Regional Geography

Course Objectives:

The students will be exposed to 'regional' approach in studying geography. The students will be conscious of the various facets of regional geography – foundations and dimensions, regional consciousness and identity, and forms and evolution. The students will be aware of the hierarchy of regional divisions of India.

Course Contents:

Unit-I

Introduction: origin and development of regional studies, regional approach, methods of regionalization.

Unit-II

Foundations and Dimensions of Regional Geography: ecological foundations, economic foundations, social and cultural dimensions.

Unit-III

Regional Organization of Space: regional consciousness and identity, region and political life.

Unit-IV

Forms and Evolution of Regional Organization: societies without space, regional organization of traditional and industrial societies, globalization and new territorial order. Future of the Regional Approach: selected case-studies from India.

Course Outcomes:

CO1: To analyses the principal issues confronting the regions.

CO2: The insight 'how regions work', through case-study from India.

CO3: To understand and analyses the principal issues confronting the different regions of India.

CO4: To know about the Evolution of Regional Organization.

PO-CO Mapping (Please 3, 2, 1 wherever required)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	2	1	3	2	1	1	2	1	1
CO2	3	2	1	2	1	2	2	1	1

CO3	2	2	1	1	1	2	1	2	1
CO4	1	3	2	2	2	1	1	1	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	2
CO2	3	2	1
CO3	3	2	1

Suggested Readings:

- ➤ Abler R., Adams J. S., and Gould P. R., 1971. Spatial Organization: A Geographer's View of the World, Englewood Cliffs, Prentice-Hall.
- ➤ Claval Paul, 1998. An Introduction to Regional Geography, Blackwell Publishers, Oxford and Massachusetts.
- ➤ De Blij H. J. 1971. Geography: Regions and Concepts, John Wiley and Sons.
- Deshpande C. D. 1992. India: A Regional Interpretation, ICSSR, New Delhi.
- ➤ Johnson E. A. J. 1970. The Organization of Space in Developing Countries, MIT Press, Massachusetts.
- ➤ Johnston R. J. And Hauer J. 1990. Regional Geography: Current Developments and Future Prospects, Taylor and Francis.
- ➤ Johnston R. J. and Sidaway J. D. 2004. Geography and Geographers: Anglo-American Human Geography since 1945, Arnold, London.
- ➤ Mandal R. B. (ed.), 1990. Patterns of Regional Geography An International Perspective. Vol. 1 Conceptual Development.
- Minshull Roger, 2007. Regional Geography: Theory and Practice, Transaction Publishers.
- ➤ Singh R. L. 1971. India: A Regional Geography, National Geographical Society of India.
- ➤ Spate O. H. K. and Learmonth A. T. A. 1954. India and Pakistan A General and Regional Geography, Methuen.
- ➤ Whittlesey D. 1952. The Regional Concept and the Regional Method in P. James and C. F. Jones (eds.), American Geography Inventory and Prospect, AAAG.

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- www.ncert.nic.in
- www.sciencedaily.com
- www.cambridge.org
- www.ncert.nic.in
- > en.m.wikipidia.org
- > www.nationalgeography.com

Master of Arts (Geography) GEOEC407; Media Geography

Course Objectives:

The students will be exposed to critically understand the intersection between geography and media. To understand how media scopes take shape and influence spatial thinking. To understand the role of media in bringing rapid transformations in society.

Course Contents:

Unit-I

Introduction: Concept of media and the production of space and place; understanding the different approaches in media scopes; understanding different forms of media and geographical knowledge.

Unit-II

The Media Industry: Political economy of media industries, production of consumptive cultures, advertising and global markets; creation of global capital and markets.

Unit-III

Media scopes: Mediated spaces of affect; everyday representations of space and place in different forms of media; politics of representations and reproduction in media scopes.

Unit-IV

Moral economy of Media: Media and the public sphere; free speech and motivation; value of engagement and participation of audiences and producers.

Course Outcomes:

CO1: To understanding the different approaches in media scopes.

CO2: To know about the Media Industry.

CO3: To representations of space and place in different forms of media.

CO4: To know about free speech and motivational speech.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	1	2	3	2	2	1	2	1	1

CO2	2	3	2	1	2	1	1	1	1
CO3	1	1	2	2	1	2	1	2	1
CO4	1	3	2	2	1	2	1	1	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	2
CO2	3	2	1
CO3	3	2	2

Suggested Readings:

- Aitken, Stuart C., and Leo E. Zonn. 1994. Place, Power, Situation, and Spectacle: A Geography of Film, Lanham, MD: Rowman & Littlefield.
- ➤ Boym, S. 2002. The Future of Nostalgia, New York: Basic Books. Casey.
- ➤ Burgess, J. and John R. Gold, eds. 1985. Geography, the Media, and Popular Culture, New York: St. Martin's.
- ➤ Jenkins, H. 2006. Convergence Culture: Where Old and New Media Collide, New York: New York University Press.
- Adams, P. C. 2009. Geographies of Media and Communication: A Critical Introduction, London: Wiley-Blackwell.
- Adams, PC, Craine, J, Dittmer, J (eds) 2014. The Ashgate Research Companion to Media Geography, Aldershot: Ashgate Press.
- ➤ Travis, C. And von Lunen. A. (eds), 2016. The Digital Arts and Humanities, Neogeography, Social Media, Big Data Integrations and applications, Springer: Switzerland.
- ➤ Gokulsing, K.M., and Dissanayake, W. 2009. Popular Culture in a Globalised India, Routledge: London and New York.
- Rajagopal, A. and Rao, A. 2016. Media and Utopia: History Imagination and Technology, Routledge: London and New York.
- ➤ Chung, W.H.K. and Keenan, T. (eds), 2006. New Media, Old Media: A History and Theory Reader, Routledge: London and New York.

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Master of Arts (Geography) GEOOE401; Regional Development in India

Course Objectives:

The students will be exposed to main focus is teach changing paradigm of regional development and why at present there is need of sustainable regional development strategy. Apart from these of specific interest is to cover the role of NITI Aayog and planning commission and its various regional development strategies shaping present and future regional development pattern in India.

Course Contents:

Unit I

Concept of Regional Development: changing paradigm, need for sustainable regional development.

Unit II

Indian Development Thought: development ideas of Gandhi, Census of India, Planning commission, and NITI Aayog.

Unit III

Identification of Regional Disparities: spatial patterns and temporal trends, Human Development Index.

Unit IV

Regionalization for Sustainable Development: area development programmes, agro climatic regions, metropolitan regions.

Regional development strategies: Growth Center, Special Economic Zones, watershed approach, micro level planning.

Course Outcomes:

CO1: To understand the concept and need of sustainable regional development in India.

CO2: To know about role of various development ideas shaping regional development strategies.

CO3: To Understand spatial and temporal pattern of area development.

CO4: To evaluate approach, micro level planning.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	1	1	3	2	1	2	1	2	1
CO2	1	2	1	1	2	1	1	1	1
CO3	3	1	2	1	1	2	2	1	1
CO4	1	2	1	2	2	1	1	1	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1
CO3	3	3	1

Suggested Readings:

- ➤ Bardhan, P. 1984. The Political Economy of Development in India, Oxford, Blackwell.
- ➤ Bhalla, A.S. 1992. Uneven Development in the Third World: A Study of India and China, London, Macmillan.
- ➤ Dreze, J. and Sen, A. 1996. Indian Development: Select Regional Perspectives, Oxford University Press.
- ➤ Ganguli B.N. 1997. Indian Economic Thought: A 19th Century, Perspective, Tata McGraw Hill. New Delhi
- ➤ Misra, R.P. (ed.) 1992. Regional Planning Concepts, Techniques, Policies and Case Studies, Concept Publishing Pvt. Ltd, Delhi.
- ➤ Mitra, Ashok. 1961. Levels of Regional Development in India, Census of India 1, no. 04 Part 1, 4.
- ➤ Nath, V. 2009. Regional Development and Planning in India, Concept Publishing Company.
- ➤ Sharma, H.S and Chattopadhyaya, S. 1998. Sustainable Development: Issues and Case Studies, Concept Publishing, Delhi.

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- > www.nationalgeography.com

Master of Arts (Geography) GEOOE402; Culture, History and Landscape

Course Objectives:

The students will be exposed to critically understand the inter-relations between human society and landscapes. To understand how landscapes take shape in a larger historical and socio-political contexts. To understand how landscapes are products of both local issues contextualised within broader socio-political contexts.

Course Contents:

Unit I

Introduction: Concept of landscape; understanding the different approaches to studying landscape; re-evaluation of landscape and new cultural geography.

Unit II

The Content of Landscape: Finding the colonial and topicality; local and the vernacular landscape; memories and memorialization of landscapes.

Unit III

Reproduction of Landscape: everyday representations of landscape in literature, popular media and new media; politics of representations and reproduction of landscapes.

Unit IV

Metropolitan Landscapes: Modernity and the spectacles of urban landscapes; built environment and the imagination of landscapes – in global North and South.

Course Outcomes:

CO1: To understand the intersections between geographical space, society and history.

CO2: To critically analyses and understand the evolution of contemporary landscapes from a geographical perspective.

CO3: To understand the continuous making of landscapes and how they reflect human struggles.

CO4: To know about the landscapes, conflicts and ambiguities.

PO-CO Mapping (Please 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	1	3	1	2	2	1	2	1	1
CO2	2	2	1	1	3	1	2	1	1
CO3	1	3	2	1	1	2	1	2	1
CO4	2	1	3	1	2	1	2	3	1

CO-Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	2
CO2	3	2	1
CO3	3	2	1

Suggested Readings:

- ➤ Cosgrove, D.E. 1984. Social Formation and Symbolic Landscape, University of Wisconsin: USA.
- ➤ Bender, B. 1993. Landscape: Politics and Perspectives, London: Berg.
- ➤ Boym, S. 2002. The Future of Nostalgia, New York: Basic Books. Casey.
- ➤ Edward S. 2002. Representing Place: Landscape Painting and Maps, Minneapolis and, London: University of Minnesota Press.
- ➤ Corner, James, 1999. Recovering Landscape: Essays in Contemporary Landscape Theory, Princeton, NJ: Princeton University Press.
- ➤ Daniels, Stephen, 1993. Fields of Vision: Landscape Imagery and National Identity in England and the United States, Cambridge: Polity Press.
- ➤ Hirsch, Eric and O'Hanlon, Michael, 1995. The Anthropology of Landscape: Perspectives on Place and Space, Clarendon Press, Oxford.

- ➤ Mitchell, W.J.T. 2002. Landscape and Power, 2nd ed., The University of Chicago Press, Chicago and London.
- ➤ Doherty,G. And Waldheim, C. (eds), 2016. Is Landscape...? Essays on the Identity of Landscape, Routledge: London and New York.
- ➤ Terkenli, T.S and 'd Hauteserre, A. (eds), 2006. Landscapes of a new Cultural Economy of Space, Springer: Netherlands.

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- > www.sciencedaily.com
- www.cambridge.org
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Ph.D. Course Work Syllabus (Geography) Recent advances in Geography

Course Contents:

Unit- I: Recent trends: Philosophical Issue –

Positivism, Behaviouralism, Phenomenology, Idealism, Existentialism and Humanistic Geography, Spatial Justice, Radicalism & Postmodernism

Unit- II: Recent Methodological Development in Geography-

Quantitative Revolution and use of Statistical Techniques, Use of Hardware and Software Technologies in data analysis and mapping, Models and paradigms in geography.

Unit-III: Use of Modern Technology in Geography-

Remote Sensing and GIS and GPS, Hypothesis Testing, Problem Solving approaches in Geography, Project Formulation and Project Evaluation Techniques.

Unit-IV: Recent Issues in Indian Geography-

Trends of Geographical Researches in India, Prospects of Professional Opportunities in Geography, Future of Indian Geography, Problems and Prospects

Suggested Readings:

- Adams, P., Steven, H. and Karel, T. (eds.) (2001): Texture of Place. Exploring Humanistic Geographies. University of Minnesota Press, Minneapolis.
- Anderson, K., Domosh, M., Pile, S. and Thrift, N. (eds.) (2003): Handbook of Cultural Geography. Sage Publications, London.
- ➤ Barnes, T. and Gregory, D. (eds.) (1997): Readings in Human Geography: The Poetics and Politics of Inquiry. Arnold, London.
- ➤ Bunkše, E. V. (2004): Geography and the Art of Life. John Hopkins University Press, Baltimore.
- ➤ Buttimer, A. (1971): Society and Milieu in the French Geographic Tradition. Rand McNally, Chicago.
- ➤ Daniels, P., Bradshaw, M., Shaw, D. and Sidway, J. (2000): An Introduction to Human Geography. Issues for the 21st Century, Prentice Hall, London.

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