SHRI GURU RAM RAI UNIVERSITY

(Estd. by Govt. of Uttarakhand, vide Shri Guru Ram Rai University Act no. 03 of 2017)



Syllabus of Pre- PhD Geography Effective from Academic Session 2018

S.G.R.R.University, Dehradun

Pre- PhD. Geography

Semester I

Core Courses

Code	Title of Course/Paper	Credit
PGGC 102	Geographical Thought: Concepts and Issues	04
PGGC 101	Research Methodology	04

Electives Course

Code	Title of Course/Paper	Credit
PGGC 103	Advance Geomorphology and Hydrology	04
PGGL- 104	Environment and Natural Resource Management	04
PGGC - 105	Human and Economic Geography	04
PGGL- 106	Population Geography/ Settlement Geography/ Regional Planning/ Rural Landuse and Agricultural Geography	04
PGGC- 107	Field tour, workshop & seminars	04
	Total	16

PRE-PH.D. PROGRAMME (ONE SEMESTER COURSE)

GEOGRAPHY

There will be two core courses which carry 4 credits and one elective course which shall carry 4 credits . The students shall have to opt one course from the list of elective courses. 4 credits are for Field tour, workshop & seminars

PGGC 101

CORE COURSE

Course I : Geographical Thought: Concepts and Issues

- **Unit I** : Nature and evolution of geographic ideas in brief; The general characteristics of geography in ancient period; Thought of varenius and Kant; critical analysis of contributor made by Humboldt and Ritter; The general course of geographic thought in the second half the 19th century and the first half of the 20th century.
- **Unit II** : The development of dualism in Geography; Impact of Darwin's Theory of geographic thought; The development of concepts in Geography: Determinism, Possibilism and Human ecology, Applied Geography, areal differentiations and concept of distribution.
- **Unit III :** Relations between systematic sciences and systematic geography; Development of general classifications and generic principles in Geography; concept of region and regionalism; Regions of different types and orders; Methods of delimitation of regions; concept of core and marginal areas; concept of cultural landscape & concept relating to citycountry functional relationship.
- **Unit IV** : Behavioural, humanistic and radical approaches in Geography; Role of Quantification and systematic analysis in the development of unified theory in Physical and Human geography. Ecological study in geography as man-environment system; New geography as general spatial systems theory based on macro-structure of space-time organisations.

Readings Recommended:

1. Ackerman, E.A. Geography as a Fundamental Research Discipline

2. Chorley, R.J. (ed.)	Direction in Geography
3. Dube, B.	Geographical Concepts in Ancient India
4. Hartshorne, R.	Perspective on the Nature of Geography
5. Hartshorne, R.	The Nature of Geography
6. Holt-Jensen, A.	Geography-Its History and Concepts
7. James, P.E.	New View points in Geography
8. Harvey, D	Explanation in Geography

PGGC 102 Course II: Research Methodology

- **Unit I** : Meaning and Objective of Research, types of research; significance and geographical methods of research, research problem-selecting the problem; techniques involving in defining the problem.
- **Unit II** : Hypothesis: Meaning, characteristics and importance of hypothesis in research, problems in formulating hypothesis; Testing of hypothesis; Research designs: Need for research design; Types of research design; Regional methods of regions & regionalization, Review of literature.
- **Unit III**: Nature of geographical studies, case studies, areas studies, diagnostic studies and regional development. Techniques of field study and surveying. Sampling method, steps in sampling design, types of sampling method, collection of primary data with schedule and questionnaire; Interview, Observation and collection of secondary data.
- **Unit IV** : Thesis writing; Techniques for preparation of maps and diagrams for processed data. Solution of the problem, remote sensing and G.I.S. techniques; use of statistics in the analysis of data, classification, tabulation, comparison and interpretations of data, book review, references and preparation of glossary, appendix and bibliography.

Reading Recommended:

1.	ICSSR	A survey of research in geography
2.	Jones	Field work in Geography, London
3.	Gupta, S.S.	A guide of field study, Calcutta
4.	Toyne and Newby	Techniques in Human Geography
5.	J. Anderson, B.M. Surton and M. Porle	Thesis and Assignment writing (New Delhi)
6.	Haring and Lourisbury	Introduction to scientific Geographic research (1971)

Keats Cartographic design and production
Fitzgerald Development in Geographical Method C.V.P. 1974 (a)
Chorley (ed.) Models in Geographical Research
Kothari, C.R. Research Methodology (1988), Willey Publishers, New Delhi

ELECTIVE COURSE

The candidates are required to opt any one group of courses consisting of two papers from the following groups of courses.

PGGC 103 Geomorphology and Hydrology

- **Unit-I**: Definition, Scope and significance of geomorphology, concepts and methods in contemporary geomorphology; recent, trends in geomorphology; Techniques of geomorphologic mapping and topographical analysis, Terrain classification.
- **Unit II** : Major processes of landscape sculpture under different climatic environments: Mass movement, hill slope erosion, fluvial, glacial and periglacial processes and resulting landforms. Morphometry liner, areal and relief aspect. Drainage basin analysis; serial and areal representation of morphology.
- **Unit III**: Landscape development, structural landforms, slope analysis, application of geomorphology in resource utilization and environmental management. Applied geomorphology; Regional geomorphology with special reference to Uttarakhand Himalaya.
- **Unit IV** : Meaning, Scope and practical utility of hydrology, sources of hydrological data; hydrograph analysis; Water balance; Man's influence on the hydrologic cycle; drainage basin studies; the hydrologic budget equations; evaporation control; hydrological provinces of India.

Readings recommended:

1. King, C.A.M.	Techniques in Geomorphology
2. Thornbury, W.D.	Principles of Geomorphology
3. Tricart, J.	Structural Geomorphology
4. Pal, S.L. (1986)	Geomorphology of River Terraces along Alaknanda

	Valley, Garhwal Himalaya
5. Thorn, Colin, E.	Introduction to Theoretical Geomorphology
6. Singh, T.V. (1990)	Geography of the Mountains (ed.)
7. Ward, R.C.	Principles of Hydrology
8. Wilson, E.N.	Engineering Hydrology
9. Wister & Beater	Hydrology
10.Cooke, R.V. & Doorn, K.J.C.	Geomorphology in Environmental Management

PGGC 104 Environment and Natural Resource Management

- **Unit I** : Nature, Scope and Significance of environmental study, components and functions of ecosystem, major ecosystems of earth.
- **Unit II** : Environmental crisis, global climatic change, shrinking of glaciers, Elnino effect, Desertification, Natural Hazards, Cultural hazards, environmental issues in mountains with special reference to Uttarakhand.
- **Unit III**: Concepts and principles of natural resources, Geo-informatics for natural resource management, Digital Image Processing, GIS, Concept of Watershed and Watershed management, Natural Resource Management and Strategies.
- **Unit IV** : Community based natural resource management, Indigenous knowledge for resource management, Eco-services, success stories in Uttarakhand (Natural Resource Management) Natural resources and sustainable development, Biodiversity assessment and conservation.

Readings Recommended

- Environmental Change and Sustainable Development in the New Millennium by Dr. Mohan Singh Panwar, published by Research India Press, Sangam Vihar, New Delhi- 110062.
- Medicinal Plants and Sustainable livelihood by Mohan Singh Panwar, Sunesh Kr. Sharma and R.B. Singh, published by RK Books, Daryaganj, New Delhi – 110002.
- Himalayan Parvat Mein Sansadhan Prabhandhan by Kaushal Kumar Sharma, Suresh Kumar Bandooni and Virender Singh Negi published by Research India Press, Sangam Vihar, New Delhi- 110062.
- 4. Studies in Himalayan Ecology and Development Strategies by Tejvir Singh and Jagdish Kaur published by the English Book Sore, New Delhi- 110001.
- 5. Evaluation of Watersheds in India by G. Sastry et al., published by Scientific

publishers, Jodhpur- 342001.

- 6. Rural Poverty Assessment and Livelihood Strategies by M.Biswanath et al. published International Book Distributors, Dehradun-248001.
- 7. The Holi Himalaya, A Geographical Interpretation of Garhwal, by Nitya Nand and Kamlesh Kumar, published by Daya publishing house, Delhi-110006.
- 8. Watershed Management in Himalaya; Concept and Strategy by B.P. Pandey et al. published Gyanodyaya Prakashan, Nainital-263001.

PGGC 105 : Human and Economic Geography

- **Unit I** : Man as resources; Principles of Human Geography, Man and his environment; concepts of cultural landscape and economic landscape.
- **Unit II** : Cultural and economic regionalization (Global and Indian Context)
- **Unit III**: Level of Economic development; Indicators of economic development; Indian economy and SAPTA, EV, ASEAN, OPEC and WTO, Problems of developed and developing countries.
- **Unit IV** : Socio-Economic issues and policies (Indian Context)

Readings Recommended

1. Brunches	Human Geography, R. and MC Nally, Chicago
2. Huntington	Human Geography, Asia Publishing House, Bombay
3. Zimmeerman	World Resources
4. Hagett, Peter	Locational Analysis in Human Geography, Edern Arnold, London
5. Jagdish Singh	Arthik Bhoogol Ke mool tatva (Hindi), Gyanodaya Prakasha, Gorakhpur
6. Semple, E.C.,	Influences of Geographic Environment, Henry Holf, New York
7. Spencer J E and Thomas, WC	Cultural Geography, Willy and Sans, New York
8. Carter, G.F.	Man and Land- A Cultural Geography, New York
9. Maurya SD and G Dies	Social Environment of India; Chugh publications, Allahabad
10. Harvey D	Explanation in Geography, Edward Arnold, London
11. Finch and Trewartha	Element of Geography- Physical and Human Methuen, London
12. Salter, C.L.	The Cultural Landscape, California

PGGC 106 Population Geography

- **Unit I** : Population Geography: Concept and Scope: Components of population growth, demographic characterisation; Migration-types, causes and consequences.
- **Unit II** : Stationary and Stable population, composition and characteristics of rural and urban population; social and occupational structure of population, socio-economic implications of populating.
- **Unit III**: Population characteristics of developed and developing countries; India's population- characteristics and regional variation; population planning, policies and development.
- **Unit IV** : Theories of population growth; Optimum population; Population projection; population pressure and population explosion; problem of declining and zero growth; population resources regions.

Readings Recommended

1. Bose, Ashish	Population in India's Development, Vikas, New Delhi
2. Chandna R.C.	Geography of Population; Kalyani Pub. New Delhi
3. Champion, T.	Population Matters, Paul Champion, London
4. Johnes, S.R.	Population Geography, Paul Champion, London
5. Pathak, L.P.	Population Studies, Rawat Pub., Jaipur
6. Trewarth G.T.	A Geography of population- World Patterns, John Willy, New York
7. Zelinsky, Wilber	Geography and a Crowding World, Oxford University Press, New York
8. Woods, R.	Population Analysis in Geography; Longman, London

OR

PGGC 106 Settlement Geography

- **Unit I** : Nature, Scope, Definition and significance of settlement geography; Human Settlement as a system; concept and characteristics of rural settlements; Theories and models of settlement diffusion; sitting, location, distribution, spacing and nature of dispersion of rural settlement.
- **Unit II** : Types and patterns of settlements; Rural service centres-hierarchy, service area and interaction; Anatomy and characteristics of Indian Villages.
- Unit III : Meaning and scope of Urban Geography; Process and trends of Urbanization; Origin and evolution of Urban Centres; Methodology in Urban Studies; size and spacing of cities; functional classification of towns.
- **Unit IV** : Town Planning; Planned cities of India; Urban Problems- environmental, housing, transportation, crime, urban poverty; national capital regions; Million Cities of India.

Readings Recommended

1. Sing, O.P.	Nagriya Bhoogol (Hindi), Tara Publication, Varanasi
2. Singh R.L.	Rural Settlement in Monsoon Asia, NASI, Varanasi
3. Tiwari, R.C.	Settlement Geography (Hindi) Prayag Pub. Allahabad
4. Hudson, F.S.	A Geography of Settlements; MC Donald and Evans, New York
5. Daniel.P.	Geography of Settlements; Rawat, Jaipur
6. Singh, S.B.	Rural Settlement Geography, UBBP Pub. Gorakhpur
7. Mandal R.B.	Urban Geography, Concept, New Delhi
8. Mandal, R.B.	Introduction to Rural settlement, Concept, New Delhi

9. Mayor and Cohn	Readings in Urban Geography, Union of Chicago Press, Chicago
10.Johnson, J.H.	Urban Geography, Pagan, Oxford
11.Paddison R.	Handbook of Urban Studies, Sage, London

OR

PGGC 106 Regional Planning

- **Unit I** : Concept, Nature and Scope of Regional Planning: Approaches to regional planning; Planning Regions Concept and Types
- **Unit II** : Regional Planning and National Development; Economic Development and Regional development; Regional disparity and diversity; Regional economic complexes; inter-regional and intra-regional functional interactions.
- **Unit III**: Approaches to Integrated Regional Planning in Different levels Local, regional and national; planning for tribal, agricultural, industrial and urban regions.
- **Unit IV** : Planning regions of India; Regional policies in India; Regional disparities in India; Multi level planning in India, State, district and block level planning.

Readings Suggested:

1. Mishra, O.P.	Regional Development and Planning in India, Vikas Publication, New Delhi
2. Mishra, R.P.	Regional Planning-Concept, Techniques and Policies, Concept Publications, New Delhi

3. Chandna, R.C.	Regional Planning: A Comprehensive Text; Kalyani Pub. New Delhi
4. Isard, W,	Methods of Regional Analysis; MIT Press, Cambridge
5. Moseley, M.J.	Growth centers and spatial planning, Pergmon Press, of Oxford
6. Peter, Hagett	Locational Analysis in Human Geography, Edward Arnold, London
7. Fried Mann, J and A. William	Regional Development and Planning, MIT Press, Masschusaies (USA)
8. Johnson, J.H.	Urban Geography, Pegamn, Oxford
9. Paddison R.	Handbook of Urban Studies, Sage, London

OR

PGGC 107 Course : Rural Landuse and Agricultural Geography

- **UNIT I :** Agricultural Geography deliration concept and scope, Economic activities primary, secondary and tertiary, evolution and development of agriculture in the world.
- **UNIT II :** Landuse component of Landuse Techniques of landuse analysis and landuse mappings landuse studies in India and U.K.
- **UNIT III :** Theory of Agriculture localization; Agricultures regionalization; Croprelation, agricultural efficiency; agricultural productivity; Mix forming, multiple farming, corp.-combination.
- **UNIT IV :** Problems of Indian agriculture and rural laud use agricultural regions and crop-combination regions of India, Agricultural policies and development (in case of India), Water Land development programmes and policies in India

Readings Recommended :

1.	Tarrant, J.R.	:	Agricultural Geog. New York
2.	Hussain, M.	:	Agricultural Geography, I. India Publication, Delhi
3.	HIbery, B.W.	:	Agricultural Geography, Oxford University Press.
4.	Singh B.B.	:	Krishi Bhoogol, Gorakhapur.
5.	Tiwari, R.C. & Singh B.N. : Krishi Bhoogol Prayay Pub. Bh. Allahabad		
6.	Gregory, H.F.	:	Geography of Agriculture Themes in Research.
7.	Stamp, L.D.	:	Land of Britain its use and misuse.
8.	Buck, J.	:	Land Utilization in China
9.	Addison, H.	:	Land dater and Floods.
10.	Jacks	:	Land classification of Landuse Planning
11.	Singh, V.R.	:	Land use Pattern in Mizorom and Environs.
12.	Safi, M.	: L	and Utilization in Eastern U.P.