

# DEPARTMENT OF GEOGRAPHY

School of Earth Science

## SYLLABUS

(Revised)


### BA/B.Sc Geography


(03 Year CBCS Semester System)

(Effective from academic session 2021-22)

H.N.B. Garhwal University, Srinagar (Garhwal)

(A Central University)

  
Dean  
School of Earth Science  
H.N.B. Garhwal University  
(A Central University)  
Srinagar (Garhwal)-246172  
Uttarakhand

  
Prof. M.S. Negi  
Head  
Department of Geography  
School of Earth Science  
H.N.B Garhwal University  
Srinagar (Uttarakhand)

# B.A. /B.Sc. Geography

## Instructions

1. The curriculum of study for the BA/ B Sc. degree will be spread over three academic years, and will be divided into six semesters, called as First, Second, Third, Fourth, Fifth and Sixth semester.
2. The admission to the above mentioned courses in BA/B.Sc. will be made in accordance with the guidelines laid down by the Ordinances of the University (as amended from time to time).
3. The examination and evaluation will be conducted to the above mentioned courses as per the rules/guidelines laid down under the ordinances of the University.
4. There will be four core courses in First, Second, Third and Fourth semester and two Discipline Specific Elective Courses in Fifth and Sixth semester. Each will be of 04 (four) credits.
5. Enhancement courses, one in Third and Fourth semester and other in Fifth and Sixth semester. Each course will be of four credits. The examination of SEC will be conducted by the concerning department.
6. Each theory paper will be of 04 (four) credits and the practical paper will be of 02 (two) credits. The Skill Enhancement Course will be of four credits.
7. There will be 70 marks for the written or end semester examination and 30 marks for seasonal work in each theory paper (Including practical and skill enhancement courses)
8. The division of marks of the practical paper as coming under this syllabus will be as per the guidelines prescribed in the syllabus.
9. Each theory paper will be divided in two parts e.g. Section A and Section B. There will be seven (07) short answer questions in Section A out of which a student will have to attempt five questions and each question will carry five (05) marks. In section B there will be six (06) Long Answer Questions out of which a student will have to attempt three (03) questions. Each questions will carry (15) fifteen marks.



10. The duration of theory and practical examination will be of Two (02) and three (03) hours respectively.

## **Department of Geography**

**School of Earth Science**

**H.N.B. Garhwal University, Srinagar (Garhwal)**  
**(A Central University)**

### **B.A./B.Sc. GEOGRAPHY**

#### **Core Courses:**

##### **Semester I**

1. Physical Geography
2. Practical-I

##### **Semester II**

3. Human Geography
4. Practical-II

##### **Semester III**

5. Geographical Thought
6. Practical-III

##### **Semester IV**


7. Environmental Geography
8. Practical-IV

##### **Semester V**

9. Regional Geography of World  
Or
10. Economic Geography  
Practical – V

##### **Semester VI**

11. Geography of India  
Or  
Disaster Management



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Srinagar (Uttarakhand)

12. Practical - VI

**Skill Enhancement Course: (Compulsory Courses)**

**Semester III /IV**

A. Regional Development and Planning with Special Reference to Uttarakhand .

**Semester V/VI**

B. Field Techniques and Survey Based Project Report

**Generic Elective: (For Other Subject Students)**

**Semester V**

Regional Geography of World

Or

Disaster Management

**Semester VI**

Geography of India

Or

Geography of Tourism with Special Reference to Uttarakhand



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**Srinagar (U.P.)**



## BA/ B.Sc. GEOGRAPHY

### Semester Scheme

Semester I -	Core 1:	Physical Geography (Core) (4 Credits) Practical I – (Core) (2 Credits)
Semester II-	Core 2:	Human Geography (Core) (4 Credits) Practical II – (Core) (2 Credits)
Semester III-	Core 3:	Geographical Thought (Core) (4 Credits) Practical III – (Core) (2 Credits)
Reference	SEC I -	Regional Development and Planning with Special to Uttarakhand (Core) (4 Credits)
Semester IV-	Core 4:	Environmental Geography (Core) (4 Credits) Practical IV – (Core) (2 Credits)
Reference to	SEC I -	Regional Development and Planning with Special Uttarakhand (Core) (4 Credits)
Semester V-	DSE 1	(a) Regional Geography of World (Elective) (4 Credit) Or Economic Geography (Elective) (4 Credits) Practical V – (Core) (2 Credits)
Credits)		SEC II -Field Techniques and Survey based Project Report (Core) (4
Semester VI-	DSE 2- (a)	Geography of India (Elective) (4 Credits) Or Disaster Management (Elective) (4 Credits)
Credits)		SEC II - Field Techniques and Survey based Project Report (Core) (4

### Generic Elective: For Other Subject Students

#### Semester V

1. Regional Geography of World (Elective) (4 Credit )

Or

Disaster Management (Elective) (4 Credit )

#### Semester VI

2. Geography of India (Elective) (4 Credit )

Or

Geography of Tourism with Special Reference to Uttarakhand (Elective) (4 Credit )

### Abbreviation:

SEC: Skill Enhancement Course

DSE: Discipline Specific Elective Course



## Core Courses:

### 1. Physical Geography (Core, 4 Credits)

1. Lithosphere –
  - i. Origin of the Earth; Components of Earth System.
  - ii. Internal Structure of Earth; Plate Tectonics, Rocks.
  - iii. Weathering; Work of river, wind, glacier and underground water and its associated features.
  - iv. Cycle of Erosion – Davis and Penck.
2. Atmosphere – Heat Balance; Wind types and pressure; Cyclone; Monsoon- jet streams; Climatic Classification (Koppen).
3. Hydrosphere – Hydrological Cycle; Ocean Bottom Relief Features; Tides; Currents and Salinity, Coral reef.

#### Reading List

1. Conserve H. T., 2004: Illustrated Dictionary of Physical Geography, Author House, USA.
2. Gabbler R. E., Petersen J. F. and Trapasso, L. M., 2007: Essentials of Physical Geography (8th Edition), Thompson, Brooks/Cole, USA.
3. Garrett N., 2000: Advanced Geography, Oxford University Press.
4. Goudie, A., 1984: The Nature of the Environment: An Advanced Physical Geography, Basil Blackwell Publishers, Oxford.
5. Hamblin, W. K., 1995: Earth's Dynamic System, Prentice Hall, N.J.
6. Husain M., 2002: Fundamentals of Physical Geography, Rawat Publications, Jaipur.
7. Monkhouse, F. J. 2009: Principles of Physical Geography, Platinum Publishers, Kolkata.
8. Strahler A. N. and Strahler A. H., 2008: Modern Physical Geography, John Wiley & Sons, New York.
9. Savindra singh : Physical Geography (Hindi, English)

### 2. Practical-I (Core, 2 Credits)

- a. Scale: Simple, comparative and diagonal scale.
- b. Toposheets: introduction, indexing, interpretation and conventional signs.
- c. Landform features based on contours.
- d. General introduction of satellite imagery.

#### Division of Marks:

Examination - Departmental committee appointed by HoD for University Campuses.  
External Examiners will be appointed by the University for Affiliated Colleges.

- a. Lab Work-one question from each section with internal choice (duration: three hours-50 MM)
- b. Sessional record and viva-voce- 10+10



### Reading List

1. Dent B. D., 1999: *Cartography: Thematic Map Design*, (Vol. 1), McGraw Hill.
2. Gupta K. K and Tyagi V. C., 1992: *Working with Maps*, Survey of India, DST, New Delhi.
3. Mishra R. P. and Ramesh A., 1989: *Fundamentals of Cartography*, Concept Publishing.
4. Robinson A., 1953: *Elements of Cartography*, John Wiley.
5. Sharma J. P., 2010: *Prayogic Bhugol*, Rastogi Publishers.
6. Singh R. L. and Singh R. P. B., 1999: *Elements of Practical Geography*, Kalyani Publishers
7. Singh R. L., 1998: *Prayogic Bhoogol Rooprekha*, Kalyani Publications.
8. Steers J. A., 1965: *An Introduction to the Study of Map Projections*, University of London.

### 3. Human Geography (Core, 4 Credits)

1. Definition, nature, scope, branches and contemporary relevance.
2. Cultural Regions; Race; Religion and Languages
3. Population: Population Growth; Demographic Transition Theory.
4. World Population Distribution and Composition (Age, Gender and Literacy).
5. Settlements: Types and Patterns of Rural Settlements; Classification of Urban Settlements; Trends and Patterns of World Urbanization
6. Tribes of India : Bhotiya, Bheel, Gond, Santhal, Naga and Toda

### Reading List

1. Chandna, R.C. (2010) Population Geography, Kalyani Publisher.
2. Daniel, P.A. and Hopkinson, M.F. (1989) The Geography of Settlement, Oliver & Boyd, London.
3. Johnston R; Gregory D, Pratt G. et al. (2008) The Dictionary of Human Geography, Blackwell Publication.
4. Jordan-Bychkov et al. (2006) The Human Mosaic: A Thematic Introduction to Cultural Geography. W. H. Freeman and Company, New York.
5. Kaushik, S.D. (2010) Manav Bhugol, Rastogi Publication, Meerut.
6. Maurya, S.D. (2012) Manav Bhugol, Sharda Pustak Bhawan. Allahabad.
7. Ghosh, S. (2015) Introduction to settlement geography. Orient Black Swan Private Ltd., Kolkata
8. Hussain, Majid (2012) Manav Bhugol. Rawat Publications, Jaipur

### 4. Practical II (Core, 2 Credits)

- a. Map Projection: Classification; Conical Projection with one and two standard parallel, Bonne's; Cylindrical Equal Area; Mercator's; and Polar Zenithal Equal Area map projection.
- b. Use and handling of meteorological instruments and interpretation of Indian Daily Weather Reports.
- c. Distribution Map: Isopleth, Choropleth, and Dot method.

### Division of Marks :

Examination - Departmental committee appointed by HoD for University Campuses.  
External Examiners will be appointed by the university for Affiliated Colleges.

- a. Lab Work-One question from each section with internal choice (duration three hours-50 MM)
- b. Sessional record and viva-voce- 10+10

**Reading List.**

1. Dent B. D., 1999: *Cartography: Thematic Map Design*, (Vol. 1), McGraw Hill.
2. Gupta K. K and Tyagi V. C., 1992: *Working with Maps*, Survey of India, DST, New Delhi.
3. Mishra R. P. and Ramesh A., 1989: *Fundamentals of Cartography*, Concept Publishing.
4. Robinson A., 1953: *Elements of Cartography*, John Wiley.
5. Sharma J. P., 2010: *Prayogic Bhugol*, Rastogi Publishers.
6. Singh R. L. and Singh R. P. B., 1999: *Elements of Practical Geography*, Kalyani Publishers
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8. Steers J. A., 1965: *An Introduction to the Study of Map Projections*, University of London

**5. Geographical Thought (Core, 4 Credits)**

1. Definition, nature and scope of Geography, Branches and sub branches of Geography ; Basic concepts of Geography
2. Contribution of Greek and Roman Geographers-Ptolemy and Strabo. Arab Geographers .
3. Contribution of Geographical knowledge in ancient and medieval India; Renaissance in Geography, Discoveries and inventions; Contribution of Varenus and Immanuel Kant
4. German and French School of Geography: Humboldt ,Ritter,Ratzel, Hattner, Hartshorne ,Blache and Brunhes; Anglo-American School of Geography- Davis, EC. Semple, Huntington, Isaiah Bowman, Mackinder, Herbertson, and Stamp.
5. Geography in India (after independence); Recent trends in Geography.
6. Development of Geography in Uttarakhand, Geographers of Uttarakhand.

**Selected Readings:**

1. Dickenson. R. E. – The Makers of Modern Geography, Rutledge and Kegan London
2. Freeman . T.W. – A Hundred Years of Geography, London.
3. Jones and Martin – All Possible World – A History of Geographical Ideas. Odessey, Indianapolis (USA)
4. Halt Jensen A. – Geography- Its History and Concepts , Harper and Raw London.
5. Dixit R.D. – Geographical Thought – A Contextual History of Ideas .Prentice Hall, New Delhi
6. Kaushik S.D. – Bhaugolik Vichardharayen (Hindi) – Sahitya Bhawan Pub. Agra.
7. Hussain Majid - Evolution of Geographical Thought (English And Hindi )Rawat Publication jaipur.
8. Taylor. G. Geography in Twentieth Century; London.
9. Jagdish Singh - Bhaugolik Chintan ka Kram vikas (Hindi) Gyanodaya , Gorakhpur

**6. Practical-III (Core, 2 Credits)**

- a. Primary and secondary data and their sources; Methods of primary data collection; Classification of statistical data and tabulation.





- b. Frequency curve, histogram and polygon; Measures of Central Tendency- Mean, Median, Mode.
- c. Measures of dispersion- Quartile, Standard Deviation and Coefficient of Variation.
- d. Coefficient of Correlation- Karl Pearson's and Spearman's methods, Scatter Diagrams.
- e. SPSS Software basic knowledge.

**Division of Marks:**

Examination - Departmental committee appointed by HoD for University Campuses.  
External Examiners will be appointed by the university for Affiliated Colleges.

- a. Lab Work-one question from each section with internal choice (duration three hours-50 MM)
- b. Sessional record and viva-voce- 20

**Reading List**

1. Dent B. D., 1999: *Cartography: Thematic Map Design*, (Vol. 1), McGraw Hill.
2. Gupta K. K and Tyagi V. C., 1992: *Working with Maps*, Survey of India, DST, New Delhi.
3. Mishra R. P. and Ramesh A., 1989: *Fundamentals of Cartography*, Concept Publishing.
4. Robinson A., 1953: *Elements of Cartography*, John Wiley.
5. Sharma J. P., 2010: *Prayogic Bhugol*, Rastogi Publishers.,
6. Singh R. L. and Singh R. P. B., 1999: *Elements of Practical Geography*, Kalyani Publishers
7. Singh R. L., 1998: *Prayogic Bhoogol Rooprekha*, Kalyani Publications.
8. Steers J. A., 1965: *An Introduction to the Study of Map Projections*, University of London.

**7. Environmental Geography (Core, 4 Credits)**

1. Environmental Geography: Concepts and approaches; Ecosystem – Concept and structure; Ecosystem functions.
2. Human-Environment Relationship in Equatorial, Desert, Mountain and Coastal Regions.
3. Environmental Problems and Management; Air Pollution; Biodiversity Loss; Solid and Liquid Waste.
4. Environmental Programs and Policies; Developed and Developing Countries.
5. Protected Areas; National Parks; Biosphere Reserves and Wildlife Sanctuaries in Uttarakhand.

**Reading List**

1. Casper J.K. (2010) *Changing Ecosystems: Effects of Global Warming*. InfoBase Pub. New York.
2. Hudson, T. (2011) *Living with Earth: An Introduction to Environmental Geology*, PHI Learning Private Limited, New Delhi.
3. Miller, G.T. (2007) *Living in the Environment: Principles, Connections, and Solutions*, Brooks/ Cole Cengage Learning, Belmont.
4. Singh, R.B. (1993) *Environmental Geography*, Heritage Publishers, New Delhi.
5. UNEP (2007) *Global Environment Outlook: GEO4: Environment For Development*, United Nations Environment Programme. University Press, Cambridge.
6. Wright R. T. and Boorse, D. F. (2010) *Toward a Sustainable Future*, PHI Learning Pvt Ltd, New Delhi.
7. Singh, Savindra 2001. *Paryavaran Bhugol*, Prayag Pustak Bhawan, Allahabad. (in Hindi)

**8. Practical-IV (Core , 2 Credits)**



- a. Statistical Diagrams- Compound and Multiple Bar Diagram; Ring or Circle diagram; Simple and Polyline graph, Hyther - graph and Climograph.
- b. Geological Map :Identification of rock outcrops, bedding panes, determinants of dip and thickness- simple and folded .
- c. SPSS Software Practice ( Quantitative Analysis).

**Division of Marks:**

Examination - Departmental committee appointed by HoD for University Campuses.  
External Examiners will be appointed by the university for Affiliated Colleges.

- a. Lab Work-one question from each section with internal choice (duration three hours-50 Marks)
- b. Sessional record and viva-voce- 10+10 Marks

**Reading List**

1. Dent B. D., 1999: *Cartography: Thematic Map Design*, (Vol. 1), McGraw Hill.
2. Gupta K. K and Tyagi V. C., 1992: *Working with Maps*, Survey of India, DST, NewDelhi.
3. Mishra R. P. and Ramesh A., 1989: *Fundamentals of Cartography*, Concept Publishing.
4. Robinson A., 1953: *Elements of Cartography*, John Wiley.
5. Sharma J. P., 2010: *Prayogic Bhugol*, Rastogi Publishers.
6. Singh R. L. and Singh R. P. B., 1999: *Elements of Practical Geography*, Kalyani Publishers
7. Singh R. L., 1998: *Prayogic Bhoogol Rooprekha*, Kalyani Publications.
8. Steers J. A., 1965: *An Introduction to the Study of Map Projections*, University of London.

## Discipline Specific Elective Coerces (2 Compulsory Papers)

### Semester V

#### 9. Regional Geography of World (Elective 4 Credits)

1. Earth and Solar System; Rotation and revolution of Earth; Latitude, longitude and time.
2. Major Landforms; Climates; Soils and Vegetation Zones.
3. Major Natural Regions.
4. Population distribution and growth; Races and tribes.
5. Agriculture (major cross and agricultural regions); Forestry; Sheep Rearing and Fishing.
6. Minerals; Energy and Water resources;
7. Industries (Iron &Steel, Textiles, Petro-chemicals, Automobiles; Ship building and light industries)
8. Trade and Transport. 9. World Countries.

**Reading List**

1. Agyeman, Julian, Robert D. Bullard and Bob Evans (Eds.) (2003) *Just Sustainabilities: Development in an Unequal World*. London: Earthscan. (Introduction and conclusion.).
2. Ayers, Jessica and David Dodman (2010) "Climate change adaptation and development I: the state of the debate". *Progress in Development Studies* 10 (2): 161-168.





3. Baker, Susan (2006) Sustainable Development. Milton Park, Abingdon, Oxon; New York, N.Y.: Routledge. (Chapter 2, "The concept of sustainable development").
4. Brosius, Peter (1997) "Endangered forest, endangered people: Environmentalist representations of indigenous knowledge", *Human Ecology* 25: 47-69.
5. Lohman, Larry (2003) "Re-imagining the population debate". *Corner House Briefing* 28.
6. Martínez-Alier, Joan et al (2010) "Sustainable de-growth: Mapping the context, criticisms and future prospects of an emergent paradigm" *Ecological Economics* 69: 1741-1747.
7. Merchant, Carolyn (Ed.) (1994) *Ecology*. Atlantic Highlands, N.J: Humanities Press. (Introduction, pp I-25.)
8. Osorio, Leonardo et al (2005) "Debates on sustainable development: towards a holistic view of reality". *Environment, Development and Sustainability* 7: 501-518.
9. Robbins, Paul (2004) *Political Ecology: A Critical Introduction*. Blackwell Publishing

OR

### Economic Geography (Elective, 4 Credits)

1. Definition, approaches and fundamental concepts of Economic Geography; Patterns of development.
2. Locational Theories – Agriculture (Von Thunen) and Industrial (Weber).
3. Primary Activities – Intensive subsistence farming; Commercial grain farming, Plantation; Commercial dairy farming; Commercial Fishing, and Mining (iron ore, coal and petroleum).
4. Secondary Activities – Cotton textile Industry, Petro-Chemical Industry; Major Manufacturing Regions.
5. Tertiary and Quaternary Activities – Modes of transportation; Patterns of international trade ; Information and Communication Technology Industry.

#### Reading List

1. Alexander J. W., 1963: *Economic Geography*, Prentice-Hall Inc., Englewood Cliffs, New Jersey.
2. Bagchi-Sen S. and Smith H. L., 2006: *Economic Geography: Past, Present and Future*, Taylor and Francis.
3. Coe N. M., Kelly P. F. and Yeung H. W., 2007: *Economic Geography: A Contemporary Introduction*, Wiley-Blackwell.
4. Combes P., Mayer T. and Thisse J. F., 2008: *Economic Geography: The Integration of Regions and Nations*, Princeton University Press.
5. Durand L., 1961: *Economic Geography*, Crowell.
6. Hodder B. W. and Lee R., 1974: *Economic Geography*, Taylor and Francis.
7. Wheeler J. O., 1998: *Economic Geography*, Wiley.
8. Willington D. E., 2008: *Economic Geography*, Husband Press.

### 10. Practical V (Core 2 Credits)

- a. Prismatic Compass Survey- open and closed traverse.
- b. Use and handling of GPS.
- c. Remote sensing and Satellite Imageries (Landsat and Bhuvan Geoportal)



### Division of Marks:

Examination - Departmental committee appointed by HoD for University Campuses.  
External Examiners will be appointed by the university for Affiliated Colleges.

- a. Two field survey Exercises -duration Four hours-(30 marks)
- b. GPS, Remote Sensing and Satellite Imageries(10+10)
- c. Sessional record and viva-voce(10+10)

### Reading List

1. Dent B. D., 1999: *Cartography: Thematic Map Design*, (Vol. 1), McGraw Hill.
2. Gupta K. K and Tyagi V. C., 1992: *Working with Maps*, Survey of India, DST, New Delhi.
3. Mishra R. P. and Ramesh A., 1989: *Fundamentals of Cartography*, Concept Publishing.
4. Robinson A., 1953: *Elements of Cartography*, John Wiley.
5. Sharma J. P., 2010: *Prayogic Bhugol*, Rastogi Publishers.
6. Singh R. L. and Singh R. P. B., 1999: *Elements of Practical Geography*, Kalyani Publishers
7. Singh R. L., 1998: *Prayogic Bhoogol Rooprekha*, Kalyani Publications.
8. Steers J. A., 1965: *An Introduction to the Study of Map Projections*, University of London.

### Semester VI.

#### 11. Geography of India (Elective, 4 Credits)

1. Physical Setting – Location; Structure and Relief; Drainage; Climate.
2. Population – Size and growth since 1901; Population Distribution; Literacy; Sex Ratio,
3. Settlement System - Rural settlement types and patterns; Urban Settlement.
4. Resource Base – Livestock (cattle and fisheries); Power (coal, and hydroelectricity); Minerals (iron ore, petroleum and bauxite).
5. Economy – Agriculture (Rice, Wheat, Sugarcane, Tea, Cotton); Industries (Cotton Textile, Iron-Steel and Automobile), Transportation modes (Road and Rail).
6. Uttarakhand Geographical Setting-Physical Setting(Relief,Drainage,Population structure,Resource,Forest,Minrals).

### Reading List

1. Hussain M., 1992: *Geography of India*, Tata McGraw Hill Education.
2. Mamoria C. B., 1980: *Economic and Commercial Geography of India*, Shiva Lal Agarwala.
3. Miller F. P., Vandome A. F. and McBrewster J., 2009: *Geography of India: Indo- Gangetic Plain, Thar Desert, Major Rivers of India, Climate of India, Geology of India*, Alpha script Publishing.
4. Nag P. and Sengupta S., 1992: *Geography of India*, Concept Publishing.
5. Pichamuthu C. S., 1967: *Physical Geography of India*, National Book Trust.
6. Sharma T. C. and Coutinho O., 1997: *Economic and Commercial Geography of India*, Vikas Publishing.
7. Singh Gopal, 1976: *A Geography of India*, Atma Ram.
8. Spate O. H. K. and Learmonth A. T. A., 1967: *India and Pakistan: A General and Regional Geography*, Methuen.

OR

**Disaster Management (Elective ,4 Credits)**

1. Disaster: Meaning, types, natural disaster, manmade disaster, causes and effects.
2. Risk, vulnerability, disaster preparedness, prediction, early warning system; Safety measures; Major disaster events in Uttarakhand.
3. Role of information, education communication in Disaster Management; Role of government and NGO; Community based disaster management. SDRF, NDRF, NIDM, NDMA.
4. Disaster management: Relief, recovery, reconstruction and rehabilitation.

**Reading List**

1. Government of India. (1997) Vulnerability Atlas of India. New Delhi, Building Materials & Technology Promotion Council, Ministry of Urban Development, Government of India.
2. Kapur, A. (2010) Vulnerable India: A Geographical Study of Disasters, Sage Publication, New Delhi.
3. Modh, S. (2010) Managing Natural Disaster: Hydrological, Marine and Geological Disasters, Macmillan, Delhi.
4. Singh, R.B. (2005) Risk Assessment and Vulnerability Analysis, IGNOU, New Delhi. Chapter 1, 2 and 3
5. Singh, R. B. (ed.), (2006) Natural Hazards and Disaster Management: Vulnerability and Mitigation, Rawat Publications, New Delhi.
6. Sinha, A. (2001). Disaster Management: Lessons Drawn and Strategies for Future, New United Press, New Delhi.
7. Stoltman, J.P. et al. (2004) International Perspectives on Natural Disasters, Kluwer Academic Publications. Dordrecht.
8. Singh Jagbir (2007) "Disaster Management Future Challenges and Opportunities", 2007. Publisher- I.K. International Pvt. Ltd. S-25, Green Park Extension, Uphaar Cinema Market, New Delhi, India .
9. Naithani, B.P. and Panwar, S. Natural Disaster: Effect and Management

**12. Practical-VI ( Core 2 Credits)**

- a. Plane Table Survey- Radiation and Intersection Methods.
- b. Use and handling of Indian Clinometers.
- c. GIS: Components, GIS data structure , Type, Raster and Vector data structure ; GIS software knowledge-Geo referencing, Editing ; GIS use and application in Geography.

**Division of Marks:**

Examination- Departmental committee appointed by HoD for University Campuses.  
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One field survey exercises with clinometers) (duration four hours-a.20 and b. 15 marks)  
GIS and Remote Sensing exercise-15 Marks  
Seasonal record and viva-voce- 10+10 marks.

**Reading List**

1. Dent B. D., 1999: *Cartography: Thematic Map Design*, (Vol. 1), McGraw Hill.



2. Gupta K. K and Tyagi V. C., 1992: *Working with Maps*, Survey of India, DST, New Delhi.
3. Mishra R. P. and Ramesh A., 1989: *Fundamentals of Cartography*, Concept Publishing.
4. Misra R.N. and Sharma P., 2019, *Practical Geography*, Rawat Publication, Jawahar Nagar, Jaipur.
5. Robinson A., 1953: *Elements of Cartography*, John Wiley.
6. Sharma J. P., 2010: *Prayogic Bhugol*, Rastogi Publishers.
7. Singh R. L. and Singh R. P. B., 1999: *Elements of Practical Geography*, Kalyani Publishers
8. Singh R. L., 1998: *Prayogic Bhoogol Rooprekha*, Kalyani Publications.
9. Steers J. A., 1965: *An Introduction to the Study of Map Projections*, University of London.

## Skill Enhancement Course

### Semester III/IV.

#### A. Regional Development and Planning with Special Reference to Uttarakhand ( 4 Credits)

- A. 1 Definition, need and types of regional Planning.
2. Delineation of Planning Region, Planning Regions of Uttarakhand
- B. Participatory, Micro Planning Survey Techniques and field study project report (Report of 30 Pages should have at least 5 Maps, 10 Photographs and 5 Tables)

#### Reading List

1. Blij H. J. De, 1971: *Geography: Regions and Concepts*, John Wiley and Sons.
2. Claval P.I, 1998: *An Introduction to Regional Geography*, Blackwell Publishers, Oxford and Massachusetts.
3. Friedmann J. and Alonso W. (1975): *Regional Policy - Readings in Theory and Applications*, MIT Press, Massachusetts.
4. Gore C. G., 1984: *Regions in Question: Space, Development Theory and Regional Policy*, Methuen, London.
5. Gore C. G., Köhler G., Reich U-P. and Ziesemer T., 1996: *Questioning Development; Essays on the Theory, Policies and Practice of Development Intervention*, Metropolis- Verlag, Marburg.
6. Haynes J., 2008: *Development Studies*, Polity Short Introduction Series.
7. Johnson E. A. J., 1970: *The Organization of Space in Developing Countries*, MIT Press, Massachusetts.
8. Peet R., 1999: *Theories of Development*, The Guilford Press, New York.
9. UNDP 2001-04: *Human Development Report*, Oxford University Press.
10. World Bank 2001-05: *World Development Report*, Oxford University Press, New

### Semester V/VI.

#### B Field Techniques and Survey based Project Report ( 2 Credits)

1. Field Work in Geographical Studies – Role, value and ethics of field-work.
2. Defining the Field and Identifying the Case Study – Rural / Urban / Physical / Human / Environmental.
3. Field Techniques – Merits, demerits and selection of the appropriate technique; Observation (Participant / Non Participant).
4. Questionnaires (Open/ Closed / Structured / Non-Structured); Interview with special focus





on focused group discussions; Space survey (Transects and Quadrants, Constructing a Sketch).

5. Designing the Field Report – Aims and objectives, methodology, analysis, interpretation and Writing the Report.

### **Practical Record**

1. Each student will prepare an individual report based on primary and secondary data collected during field work.

2. The duration of the field work should not exceed 10 days.

3. The word count of the report should be about **8000 to 12,000** excluding figures, tables, photographs, maps, references and appendices.

4. One copy of the report on A4 size paper should be submitted in soft binding

**Note-** The Field Work Report will be evaluated by the external examiner appointed by the University

**Marks Distribution:** Report Evaluation-50 Marks , Viva-voce- 20 Marks

### **Reading List**

1. Creswell J., 1994: *Research Design: Qualitative and Quantitative Approaches* Sage Publications.

2. Dikshit, R. D. 2003. *The Art and Science of Geography: Integrated Readings*. Prentice-Hall of India, New Delhi.

3. Evans M., 1988: "Participant Observation: The Researcher as Research Tool" in *Qualitative Methods in Human Geography*, eds. J. Eyles and D. Smith, Polity.

4. Mukherjee, Neela 1993. *Participatory Rural Appraisal: Methodology and Application*. Concept Pubs. Co., New Delhi.

5. Mukherjee, Neela 2002. *Participatory Learning and Action: with 100 Field Methods*. Concept Pubs. Co., New Delhi

6. Robinson A., 1998: "*Thinking Straight and Writing That Way*", in *Writing Empirical Research Reports: A Basic Guide for Students of the Social and Behavioural Sciences*, eds. by F. Pryczak and R. Bruce Pryczak, Publishing: Los Angeles.

7. Special Issue on "Doing Fieldwork" *The Geographical Review* 91:1-2 (2001).

8. Stoddard R. H., 1982: *Field Techniques and Research Methods in Geography*, Kendall/Hunt.

9. Wolcott, H. 1995. *The Art of Fieldwork*. Alta Mira Press, Walnut Creek, CA.

## **Generic Elective (Other Subject Student)**

### **Semester V. Regional Geography of World ( 4 Credits)**

1. Earth and Solar System; Rotation and Revolution of Earth; Latitude, Longitude and Time.

2. Major Landforms, Climates, Soils and Vegetation Zones.

3. Major Natural Regions.

4. Population Distribution and Growth, Races and Tribes.

5. Agriculture (major crops and agricultural regions); Forestry, Sheep Rearing and Fishing.

6. Minerals, Energy and Water resources and Major Industries.





7. Industries (Iron & Steel, Textiles, Petro-chemicals, Automobiles, Ship building and light industries) 8. Trade and Transport.
9. World Countries.

### Reading List

1. Agyeman, Julian, Robert D. Bullard and Bob Evans (Eds.) (2003) *Just Sustainabilities: Development in an Unequal World*. London: Earthscan. (Introduction and conclusion.)
2. Ayers, Jessica and David Dodman (2010) "Climate change adaptation and development I: the state of the debate". *Progress in Development Studies* 10 (2): 161-168.
3. Baker, Susan (2006) *Sustainable Development*. Milton Park, Abingdon, Oxon; New York, N.Y.: Routledge. (Chapter 2, "The concept of sustainable development").
4. Brosius, Peter (1997) "Endangered forest, endangered people: Environmentalist representations of indigenous knowledge", *Human Ecology* 25: 47-69.
5. Lohman, Larry (2003) "Re-imagining the population debate". *Corner House Briefing* 28.
6. Martínez-Alier, Joan et al (2010) "Sustainable de-growth: Mapping the context, criticisms and future prospects of an emergent paradigm" *Ecological Economics* 69: 1741-1747.
7. Merchant, Carolyn (Ed.) (1994) *Ecology*. Atlantic Highlands, N.J: Humanities Press. (Introduction, pp 1-25.)
8. Osorio, Leonardo et al (2005) "Debates on sustainable development: towards a holistic view of reality". *Environment, Development and Sustainability* 7: 501-518.
9. Robbins, Paul (2004) *Political Ecology: A Critical Introduction*. Blackwell Publishing

OR

### Disaster Management ( 4 Credits)

1. Disaster: Meaning, types, natural disaster, manmade disaster, causes and effects.
2. Risk, vulnerability, disaster preparedness, prediction, early warning system safety measures, major disaster events in Uttarakhand.
3. Role of information, education communication in disaster management. Role of government and NGO. community based disaster management. SDRF, NDRF, NIDM, NDMA
4. Disaster management: Relief, Recovery, Reconstruction and Rehabilitation.

### Reading List

1. Government of India. (1997) *Vulnerability Atlas of India*. New Delhi, Building Materials & Technology Promotion Council, Ministry of Urban Development, Government of India.
2. Kapur, A. (2010) *Vulnerable India: A Geographical Study of Disasters*, Sage Publication, New Delhi.
3. Modh, S. (2010) *Managing Natural Disaster: Hydrological, Marine and Geological Disasters*, Macmillan, Delhi.
4. Singh, R.B. (2005) *Risk Assessment and Vulnerability Analysis*, IGNOU, New Delhi. Chapter 1, 2 and 3
5. Singh, R. B. (ed.), (2006) *Natural Hazards and Disaster Management: Vulnerability and Mitigation*, Rawat Publications, New Delhi.
6. Sinha, A. (2001). *Disaster Management: Lessons Drawn and Strategies for Future*, New United Press, New Delhi.
7. Stoltman, J.P. et al. (2004) *International Perspectives on Natural Disasters*, Kluwer Academic



Publications. Dordrecht.

8. Singh Jagbir (2007) "Disaster Management Future Challenges and Opportunities", 2007. Publisher- I.K. International Pvt. Ltd. S-25, Green Park Extension, Uphaar Cinema Market, New Delhi, India .

9. Panwar ,S and Naithani, B.P.,Natural Disaster: Effect and Management.

### **Semester VI .Geography of India ( 4 Credits)**

1. Physical Setting – Location, Structure and Relief, Drainage, Climate.
2. Population – Size and Growth since 1901, Population Distribution, Literacy, Sex Ratio.
3. Settlement System - Rural Settlement Types and Patterns, Urban Pattern.
4. Resource Base – Livestock (cattle and fisheries), Power (coal, and hydroelectricity), Minerals (iron ore, petrolium and bauxite).
5. Economy – Agriculture (Rice, Wheat, Sugarcane, Tea, Cotton); Industries (Cotton Textile, Iron-Steel, Automobile); Transportation Modes (Road and Rail).
6. Uttarakhad Geographical Setting-Physical Setting(Relief, Drainage, Population Structure, Resource, Uttarakhand - Forest, Minerals ),Economy.

### **Reading List**

1. Hussain M., 1992: *Geography of India*, Tata McGraw Hill Education.
2. Mamoria C. B., 1980: *Economic and Commercial Geography of India*, Shiva Lal Agarwala.
3. Miller F. P., Vandome A. F. and McBrewster J., 2009: *Geography of India: Indo- Gangetic Plain, Thar Desert, Major Rivers of India, Climate of India, Geology of India*, Alpha script Publishing.
4. Nag P. and Sengupta S., 1992: *Geography of India*, Concept Publishing.
5. Pichamuthu C. S., 1967: *Physical Geography of India*, National Book Trust.
6. Sharma T. C. and Coutinho O., 1997: *Economic and Commercial Geography of India*, Vikas Publishing.
7. Singh Gopal, 1976: *A Geography of India*, Atma Ram.
8. Spate O. H. K. and Learmonth A. T. A., 1967: *India and Pakistan: A General and Regional Geography*, Methuen.

**OR**


### **Geography of Tourism with Special reference of Uttarakhand ( 4 Credits)**

1. Geography and Tourism; Nature ,scope and significance of Tourism Geography. Concept of tourism; Type of tourism; Tourism promotion policies and programs in India.
2. Tourism attraction in Uttarakhand ; Adventure tourism-Mountaineering; Trekking ; Ice Skiing; River rafting. Aesthetic tourism- National park, Wildlife Sanctuaries, Biosphere Reserves.
3. Pilgrimage and Pilgrim infrastructure; Cultural Tourism, Medical Tourism, Eco-Tourism.
4. Impact of tourism in Uttarakhand: Economy, environment, society and culture.
5. Tourism Infrastructure: Case studies of tourist places in Uttarakhand.  
Tourism organization-UNWTO,WTTC, ITDC.

**Readings Recommended:**



- 1) Bhardwaj, D.S. Chaudhary, M.: Contemporary issues in Tourism, Himalaya, Mumbai, 1997.
- 2) Bhatt, Rajesh and Kumar, K., Uttarakhand Tourism Geography, Research India Press, New Delhi, 2018.
- 3) Bhatla, A.K.: Tourism Development, Principles and Practices, Sterling, Bangalore, 1989.
- 4) Cris, Ryan: Recreationl Tourism, A Social Science Perspective, Routledge, London, 1991.
- 5) Garg, N.K.: Tourism and Economics Development, Avishkar, Jaipur, 1996.
- 6) Hall, C.M: and Page, S.J.: Tourism in South and South East Asia; Issues and Cases, Butterworth Heinemann, Oxford, 2001.
- 7) Kaul, R.K.: Dynamics of Tourism and Recreation, Inter India, New Delhi, 1985.
- 8) Sinha, p.c.: International encyclopaedia of tourism management, Vols, 1-12, Anmol New Delhi.

  
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