SHRI GURU RAM RAI UNIVERSITY

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

SYLLABUS OF B.A./B.Sc. GEOGRAPHY

Effective from Academic Session
2017-2018
&
Revised in 2023

BA/B.Sc

Duration of the Programme: Three Years

STUDY & EVALUATION SCHEME

Choice Based Credit System

Bachelor of Geography

Eligibility for admission:

Any candidate who has passed the Plus Two of the Higher Secondary Board Board of Examinations in any state recognized as equivalent to the Plus Two of the Higher Secondary Board in with not less than 40 % marks in aggregate is eligible for admission, However, SC/ST, OBC and other eligible communities shall be given relaxation as per University rules.

Program Outcomes (PO's):

PO-1 Acquire knowledge of the discipline and conduct proper academic in various areas of discipline.

PO-2 Recognize the social structures in our society.

PO-3 Communicate effectively in context which one is operating and develop soft skills

PO-4 Leader in teams in multidisciplinary courses and engage in initiatives that encourage growth for all.

PO-5 Develop awareness of issues among students

PO-6 Recognize and respect different value systems by following the norms of academic integrity.

PO-7 Explain awareness of local, regional, national and global needs.

PO-8 Work on career enhancement by adapting to professional and social needs engaged in lifelong learning.

PO-9 Exhibit capability as lifelong learners adapting new technologies, modern concepts and skills for sustainable development

PO-10 Imbibe qualities of good citizenship, morality and ethics so as to work for the betterment of mankind.

PO-11 Cultivate a broad array of interdisciplinary knowledge and skills integrating concepts of humanities and social sciences.

PO-12 Able to apply critical thinking, creativity, skills, cultural sensitivity, and humanity to create awareness within society for problem – solving and interpretation.

Program Specific Outcome (PSOs)

PSO 1	To prepare the base for geography in the mind and heart of all UG students.
PSO2	To develop the understanding of nature, culture, regional variation and economic aspects.
PSO3	To impart Geographical Knowledge to the students.
PSO4	To introduce basic concept of cartography and develop the understanding about different type of maps, scales, relief features and surveying.
PSO5	To develop understanding of Environment and Sustainable development.

B.A./B.Sc. Geography

First Semester

Total credits in BA/B.Sc Geography according to NEP-2020

Course Grid

				L	T	P	C	Sessional (Internal)	External (ESE)	
Theory										
1	Major Core	GEODC -101	Geotectonic and Geomorphology	3			3	30	70	100
Practical										
2	Major Core	GEODL -101	Practical Geography			2	1	30	70	100
		Total		3		2	4	60	140	200
Theory										
3	Major Core/ Minor Elective	GEODC-102	Physical Geography	3			3	30	70	100
Practical										
4	Minor Elective	GEODL-102	Practical Geography			2	1	30	70	100
		Total		3		2	4	60	140	200
Theory										
5	Skill Enhancement	GEOSC-101	Regional Geography	2			2	30	70	100

6	General Elective	GEOGE-101	World Geography			4	2	30	70	100
		Total					14	180	420	600

Examination Scheme:

Components	I[st] internal	II[nd] Internal	Presentation/ Assignment/ Project	External (ESE)
Weightage(%)	Marks	Marks	Marks	Marks
100%	15	15	30	70

L – Lecture, T – Tutorial, P – Practical, C – Credit

Course code	:	GEODC -101				
Course Name	:	Geotectonics and Geomorphology				
Semester /Year	:	I				
			L	**T**	**P**	**C**
			3			3

L - Lecture T – Tutorial P – Practical C – Credit

Course Objectives: The objectives of this course are

1. To give the knowledge of three major components of physical geography.
2. To develop the skill of compare and justify in students.
3. To develop the skill in student to write and prepare a project on physical environment.

Course Outcomes

Upon successful completion of the course a:

Paper code	Paper name	Course outcome
GEODC - 101	Geotectonic and Geomorphology	CO1- Students can learn and describe about basic concepts of physical geography. CO2- Students will be able to explain the 3 components of the earth system as lithosphere, atmosphere and hydrosphere. CO3- They will complete their knowledge of fluvial cycle of erosion in special reference of father of geomorphology Sir Willam Moris Davis. CO4-. Now they can compare different atmospheric phenomena in

		different region. CO5-.They will know oceanic resources and components with justification of importance of tides and currents for human lives. CO6. - They can be able to design a project on fluvial cycle, Hydrological cycle and interior of the earth etc.

GEODC- 101	Geotectonic and Geomorphology	CO1- Students will be recall the definition, scope, and branches of geography and geomorphology. CO2- Students will be able to explain the concept of Geomorphology. CO3- They will be able to classify world geomorphic region. CO4-. Now they will be identifying various type of landforms develop by various process. CO5-.They will be able to prepare an assignment on the application of Geomorphology in practical world and region geomorphology. CO6- Now they will learn the use of morphology in applied world.

CO-PO Mapping

Course	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
CO1	3	3	3	-	-	3	-	3	-	-	1	3	3	3	3	3
CO2	3	3	2	-	-	2		1	-	1	1	3	3	3	3	3
CO3	3	3	3	-	-	2	3	2	-	1	2	3	3	3	3	3
CO4	3	3	3	-	-	2	3	2	-	1	2	3	3	3	3	3
CO5	3	3	3	-	2	2	3	2	-	-	-	3	3	3	3	3
CO6	3	3	3	-	3	2	3	2	-	-	1	3	3	3	3	3
													3	3	3	3

Course Contents

Unit – 1 Geomorphology

Introduction to geography: physical and human geography.

Introduction to Geomorphology: meaning, nature, development, and scope Principles of Geomorphology. Morphogenetic regions.

Unit – 2 Systems and Cycles of the Solid Earth

Theories of landscape development by Gilbert, Davis. Theory of Isostacy: Theory of Plate Tectonics: plate boundaries

Unit – 3 The Dynamics of Earth

Interior of the earth, Earth's Movements: Endogenetic and Exogenetic forces, Sudden and Diastrophic Movements., Earthquake and Volcano, Rocks: Characteristics, types, importance of

rocks , Weathering: meaning, types and controlling factors, Mass Movement: meaning, controlling factors, types-landslides in special reference to Himalayan state.

Case Studies: Natural calamity reporting of latest incidents in Uttrakhand.

Unit – 4 Evolutions of Landforms

Concept of Cycle of Erosion–W.M. Davis and W. Penck

Agents of Denudation: River; Groundwater, Sea waves, Wind and Glaciers, drainage patterns.

Application of geomorphology: in India and Uttrakhand (Regional planning, Urban Planning and transportation, Mining, Hazard management, Agriculture and Environmental management).

Books Recommended:

Text Books:

1. Allaby, Michael (2008): Oxford Dictionary of Earth Science, Oxford University Press, New York.
2. Bloom, A.L. (1991): Geomorphology, 2nd Ed Englewood Cliffs, M.J. Prentice Hall.
3. Chorley, R.J. Schumm,S.A. & Sugden, D.E. (1985): Geomorphology, Methuen & Co. Ltd., London, New York.
4. Brierley, G.J. & Fryirs, K.A. (2005): Geomorphology and River Management, Blackwell Publishing, Oxford UK.
5. Briggs, K. (1985): Physical Geography Process and System, Hodder and Stoughton, London.
6. Dayal, P. (1996): A Textbook of Geomorphology, Shukla Book Depot, Patna.
7. Leopold, L.B. Wolman, M.G. & Miller, J.P.(1964): Fluvial Processes in Geomorphology, W.H.Freeman, San Fransisco.
8. Morgan, R.S. & Wooldridge S.W (1959): Outline of Geomorphology the Physical basis of Geography, Longmans Green, London.
9. Robinson, Harry (1969): Morphology and Landscape, University Tutorial Press Ltd. London.
10. Strahler, A.N (1969): Physical Geography. John Wiley & Sons Inc., NewYork.
11. Thornbury, W.D. (1969): Principles of Geomorphology, Wiley Easterrn Ltd. New Delhi.
12. Wadia, D.N. (1993): Geology of India, Tata McGraw Hill Edition, New Delhi.

Reference Books:

1.Singh, Savindra Geomorphology, PrayagPustakBhawan, Allahabad.:

2.Singh, Savindra,Bhooaakirtivigyan (in hindi),PrayagPustakBhawan, Allahabad.

3. Singh, Savindra (1991): Environmental Geography, Prayag Pustak Bhavan ,Allahabad

4. https://www.amazon.in/Introduction-Process-Geomorphology-Vijay-Sharma-ebook/dp/B006YWRR4A

5. https://www.kobo.com/us/en/ebook/the-basics-of-geomorphology

Course code	:	GEODL -102			
Course Name	:	Practical Geography			
Semester /Year	:	I			
		L	**T**	**P**	**C**
				4	2

Course Objectives

Theo bjectives of this course are:

1. To introduce basic concept of cartography and develop the understanding about different type of maps, scales, relief features.
2. to recognize various land form features in the topographical map.
3. Students will be able to recognize and importance of conventional signs on international platform.

Course Outcomes
Upon successful completion of the course a:

Paper code	Paper name	Course outcome
GEODL- 102	Geography Practical	CO1- Students will learn and relate relief features with actual world. CO2- Students can learn and explain basic concept of cartography. CO3- They will solve the problems related to scale. CO4-. Now they can examine the importance of topographical sheets published by Survey of India CO5-.They can prepare the plan of their area from given survey sheet. CO6-Student will be able to describe the plan prepared by them for selected micro area.

CO-PO Mapping

Course	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO11	PO 12	PSO1	PSO 2	PSO 3	PSO4
CO1	2	-	3	1	-	-	1	3	-	-	1	1	3	3	3	3
CO2	3	-	3	1	-	-	-	1	1	-	2	2	3	3	3	3
CO3	3	-	3	1	-	-	3	2	1	-	2	3	3	3	3	3
CO4	3	-	3	1	-	-	3	3	2	-	1	3	3	3	3	3

9- https://www.amazon.in/Understanding-Practical-Geography-Surveying-Secondary-ebook/dp/B076XDG8QS

10.https://books.google.co.in/books/about/Elements_Of_Practical_Geography.html?id=bFJLYgEACAAJ&redir_esc=y

Websites:

Indian Institute of Surveying & Mapping: http://www.iism.nic.in/
Survey of India Department of Science & Technology: http://www.surveyofindia.gov.in/
Indian National Cartographic Association: https://incaindia.org/
Bhuvan Indian Geo Platform of ISRO: https://bhuvan.nrsc.gov.in/,

Course code	:	GEODC- 102			
Course Name	:	Physical Geography			
Semester /Year	:	I			
		L	**T**	**P**	**C**
		4			4

L - Lecture T – Tutorial P – Practical C – Credit

Course Objectives:

The objectives of this course are:

1. To give the knowledge of three major components of physical geography.
2. To develop the skill of compare and justify in students.
3. To develop the skill in student to write and prepare a project on physical environment.

Course Outcomes

Upon successful completion of the course a:

Paper code	Paper name	Course outcome
GEODC- 102	Physical Geography	CO1- Students can learn and describe about basic concepts of physical geography. CO2- Students will be able to explain the 3 components of the earth system as lithosphere, atmosphere and hydrosphere. CO3- They will complete their knowledge of fluvial cycle of erosion in special reference of father of geomorphology Sir Willam Moris Davis. CO4-. Now they can compare different atmospheric phenomena in different region. CO5-.They will know oceanic resources and components with justification of importance of tides and currents for human lives.

CO5	3	-	3	1	-	-	3	3	2	-	1	2	3	3	3	3
CO6	3	-	3	1	-	-	3	3	2	-	1	2	3	3	3	3

3: Highest Correlated, 2: Medium Correlated, 1: Lowest Correlated

Course Contents

Unit -1

Scale- Definition and importance, construction of simple, comparative and diagonal scale.

Unit -2

Topo sheets- indexing, scale and conventional signs.

Unit -3

Study and interpretation of one inch/1:50000, Survey of India Toposheets with special reference to landscape features, drainage characteristics, land use, settlements, transport and other routes.

Unit -4

Meaning and importance of contours; landform features based on contours and profile drown on them.

Division of Marks

a. Lab Work-one question from each section with internal choice.

b.Sessional record and viva.

Reading List

Text Books:

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. Steers J. A., 1965: *An Introduction to the Study of Map Projections*, University of London.

Reference Book:

1. Singh R. L. and Singh R. P. B., 1999: *Elements of Practical Geography*, Kalyani Publishers

2. Singh R. L., 1998: *Prayogic Bhoogol Rooprekha*, Kalyani Publications.

		CO6. - They can be able to design a project on fluvial cycle, Hydrological cycle and interior of the earth etc.

CO-PO Mapping

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
CO1	3	-	3	-	-	-	3	3	-	-	1	1	3	3	3	3
CO2	3	-	3	-	-	-	3	3	1	-	2	2	3	3	3	3
CO3	3	-	3	-	-	-	3	3	1	-	2	3	3	3	3	3
CO4	3	-	3	-	-	-	3	3	2	-	1	3	3	3	3	3
CO5	3	-	3	1	-	-	3	3	2	-	1	2	3	3	3	3
CO6	3	-	3	1	-	-	3	3	3	-	1	1	3	3	3	3

3: Highest Correlated, 2: Medium Correlated, 1: Lowest Correlated

Course Contents

Unit -1

Physical Geography – Definition and Scope, Components of Earth System.

Unit -2

Lithosphere – Internal Structure of Earth based on Seismic Evidence, Plate Tectonics. Erosion and weathering; Fluvial Cycle of Erosion – Davis and Penck

Unit -3

Atmosphere – Heat Balance, Global Circulation Pattern, Tropical Cyclones, Monsoon, Climatic Classification (Koppen & Taylor).

Unit -4

Hydrosphere – Ocean Bottom Relief Features, Tides and Currents, salinity and oceanic resources.

Reading List

Text Books:

1. Conserva H. T., 2004: Illustrated Dictionary of Physical Geography, Author House, USA.

2. Gabler 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.

Reference Book:

1. Singh,Savindra : Physical Geography, PrayagPustak Bhawan, Allahabad.

2. Singh, Savindra :Bhotik Bhoogol (in Hindi), Prayag Pustak Bhawan, Allahabad.

10. https://open.umn.edu/opentextbooks/textbooks/926

11. http://www.physicalgeography.net/fundamentals/contents.html

Websites:
e-PG Pathshala: https://epgp.inflibnet.ac.in/
MOOCS - NPTEL: https://nptel.ac.in/
MOOCS - SWAYAM: https://swayam.gov.in/
National Digital Library of India: https://ndl.iitkgp.ac.in/
Shivaji University Library (E-Resources): http://www.unishivaji.ac.in/library/E-Resources

Course code	:	GEODL-102			
Course Name	:	Practical Geography			
Semester /Year	:	I			
		L	**T**	**P**	**C**
				4	2

Course Objectives

Theo bjectives of this course are:

1. To introduce basic concept of cartography and develop the understanding about different type of maps, scales, relief features.
2. to recognize various land form features in the topographical map.
3. Students will be able to recognize and importance of conventional signs on international platform.

Course Outcomes
Upon successful completion of the course a:

Paper code	Paper name	Course outcome
GEODL-102	Geography Practical	CO1- Students will learn and relate relief features with actual world. CO2- Students can learn and explain basic concept of cartography. CO3- They will solve the problems related to scale.

		CO4-. Now they can examine the importance of topographical sheets published by Survey of India CO5-.They can prepare the plan of their area from given survey sheet. CO6-Student will be able to describe the plan prepared by them for selected micro area.

CO-PO Mapping

Course	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO8	PO 9	PO 10	PO11	PO12	PSO 1	PSO2	PSO3	PSO4
CO1	2	-	3	1	-	-	1	3	-	-	1	1	3	3	3	3
CO2	3	-	3	1	-	-	-	1	1	-	2	2	3	3	3	3
CO3	3	-	3	1	-	-	3	2	1	-	2	3	3	3	3	3
CO4	3	-	3	1	-	-	3	3	2	-	1	3	3	3	3	3
CO5	3	-	3	1	-	-	3	3	2	-	1	2	3	3	3	3
CO6	3	-	3	1	-	-	3	3	2	-	1	2	3	3	3	3

3: Highest Correlated, 2: Medium Correlated, 1: Lowest Correlated

Course Contents

Unit -1

Scale- Definition and importance, construction of simple, comparative and diagonal scale.

Unit -2

Topo sheets- indexing, scale and conventional signs.

Unit -3

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Unit -4

Meaning and importance of contours; landform features based on contours and profile drown on them.

Division of Marks

a. Lab Work-one question from each section with internal choice.

b.Sessional record and viva.

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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. Steers J. A., 1965: *An Introduction to the Study of Map Projections*, University of London.

Reference Book:

1. Singh R. L. and Singh R. P. B., 1999: *Elements of Practical Geography*, Kalyani Publishers

2. Singh R. L., 1998: *Prayogic Bhoogol Rooprekha*, Kalyani Publications.

9- https://www.amazon.in/Understanding-Practical-Geography-Surveying-Secondary-ebook/dp/B076XDG8QS

10.https://books.google.co.in/books/about/Elements_Of_Practical_Geography.html?id=bFJLYgEACAAJ&redir_esc=y

Websites:

Indian Institute of Surveying & Mapping: http://www.iism.nic.in/
Survey of India Department of Science & Technology: http://www.surveyofindia.gov.in/
Indian National Cartographic Association: https://incaindia.org/
Bhuvan Indian Geo Platform of ISRO: https://bhuvan.nrsc.gov.in/

Course code	**:**	**GEOSC-101**			
Course Name	**:**	**Regional Planning and development (Skill Enhancement Course)**			
Semester /Year	**:**	**I**			
		L	**T**	**P**	**C**
		2			2

Course Objectives: The objectives of this course are:

1. To developed the analytical understanding of regional concepts, approaches and demarcation and to make the students aware about various plans adopted for regional developments.
2. Students will be able to critically evaluate the formal, functional and planning regions as well as they can evolve theoretical input for regional development.

Course Outcomes

Upon successful completion of the course a:

Paper code	Paper name	Course outcome
GEOSC-101	Regional Planning and development	CO1- Students will find the concept of region CO2- Students will be able to compare between different types of region. CO3- They will be able to classify different region on the basis of different natural and cultural components. CO4-. They will justify the limitation of a particular region. CO5-.They will be able to prepare a plan of natural regions in a political boundary as well as political regions. CO6- They will be able to prepare a design for the development region.

CO-PO Mapping

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO3
CO1	3	-	3	1	1	-	3	2	-	-	3	2	3	3	3	3
CO2	3	-	3	1	1	-	3	2	-	-	3	2	3	3	3	3
CO3	3	-	3	2	-	-	3	2	-	-	3	2	3	3	3	3
CO4	3	-	3	3	-	-	3	3	-	-	2	3	3	3	3	3
CO5	3	-	3	1	1	-	3	3	-	-	1	3	3	3	3	3
CO6	2	-	3	1	1	-	3	3	-	-	1	3	3	3	3	3

3: Highest Correlated, 2: Medium Correlated, 1: Lowest Correlated

Course Contents

Unit -1

Meaning, Concept, Need and Types of Regional Planning.

Unit -2

Regionalization of India for Planning (Agro climatic Zones).

Unit -3

Models for Regional Planning: Growth Pole Theory; Core Periphery Model and Growth Foci Concept in Indian Context.

Unit -4

Backward Regions and Regional Plans- Special Area. Development Plans in India; DVC & Tehri Dam -The Success Story and the Failures; - NITI Aayog.

Reading List

Text Books:

1. Blij H. J. De, 1971: *Geography: Regions and Concepts*, John Wiley and Sons.

2. Claval P.l, 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- Roger M Minshull, 1967; Regional Geography; Hutchinson University Library.

10. Singh R.L., 1971, India: Regional Geography; National Geographyical Society of India, Varanasi.

11. Douglas L Johnson, Viola Haarmann, Merrill L Johnson, World Regional Geography: A Development Approach, 11th edition, July 2015, Pearson Publication.

Reference Book:

1. Alka Gautam, Regional Geography of the world, Sharda Pustak Bhawan, Allahabad.

1. https://www.pearson.com/store/p/world-regional-geography-a-development-approach/P100002140235/9780137612697

2. https://www.indianculture.gov.in/ebooks/india-regional-geography

Course code	:	GEOGE -101			
Course Name	:	World Geography			
Semester /Year	:	I			
		L	**T**	**P**	**C**

	4			4

L - Lecture T – Tutorial P – Practical C – Credit

Generic Elective (1)

World's Geography

Course code	:	GEOGE -101			
Course Name	:	**World Geography**			
Semester /Year	:	**I**			
		L	**T**	**P**	**C**
		6			6

Course Objectives

The objectives of this course are:

1. Students of non-core geography subjects will understand the basics of world geography.
2. They will also know about natural and man-made resources their world distribution.
3. They will be able to understand the world's major agricultural and mineral resources region.

Course Outcomes

Upon successful completion of the course a:

Paper code	Paper name	Course outcome
GEOGE -101	World' s Geography	CO1- Students will be able to recall solar system. CO2- Students will be able to describe the movements of earth. CO3- They will be able to draw a diagram of movements of earth. CO4-. They will be able to differences between different types of resource region of the world. CO5-.They will be able to write about economic and natural region of the world. CO6- They will be able to prepare a plan and map about economic and natural region of the world.

CO-PO Mapping

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	-	3	-	3	-	3	3	3	-	1	3

CO2	3	-	3	-	3	-	3	3	3	-	2	3
CO3	3	-	3	-	3	-	3	2	3	-	-1	2
CO4	3	-	3	-	3	-	3	3	3	-		3
CO5	3	-	3	-	3	-	3	3	3	-	3	3
CO6	3	-	3	-	3	-	3	3	3	-	3	3

3: Highest Correlated, 2: Medium Correlated, 1: Lowest Correlated

Course Contents

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 corps 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.

Reading List

1. https://www.pdfdrive.com/world-geography-books.html
2. https://play.google.com/store/apps/details?id=com.sanaedutech.worldgeography&hl=en_IN&gl=US
3. https://www.gale.com/ebooks/9781642654264/world-geography
4. Fundamentals of world geography by IQ Publication
5. Vishwa ka bhugol- Chuturbhuj Mamoria- SPD Publication in Hindi
6. Physical Geography by Savindra Singh, Prawalika Publication, Allahabad.
7. Resource Geography, Majid Husain, Anmol Publications Pvt. Limited, 2003

2. **Reference Book:**
   1. World Geography, Majid Husain, Anmol Publications Pvt. Limited, 2003
   2. World Regional Geography, S.D Maurya, Pravalika Publication, Allahabad.

Shivaji University Library (E-Resources): http://www.unishivaji.ac.in/library/E-Resources

B.A./B.Sc. Geography Second Semester

S. No.	Course Category	Course Code	Course Name	Periods				Evaluation scheme		Subject Total
				L	T	P	C	Sessional (Internal)	External (ESE)	
			Theory							
1	Major Core	GEODC-201	Climatology and Oceanography	3			3	30	70	100
			Practical							
2	Major Core	GEODL-201	Practical Geography			2	1	30	70	100
		Total		3		2	4	60	140	200
			Theory							
Major Elective		GEODC-202	Human Geography	3			3	30	70	100
			Practical							
Major Elective		GEODL-202	Practical Geography			2	1	30	70	100
		Total		3		2	4	60	140	200
			Theory							
Vocational Coarse		GEOSC-201	Regional Planning and development	2			2	30	70	100
			Theory							
Open Elective		GEOGE-201	Environmental Geography	4			4	30	70	100
		Total		6			6	60	140	200

L – Lecture, T – Tutorial, P – Practical, C – Credit

Examination Scheme:

Components	I[st] internal	II[nd] Internal	Presentation/ Assignment/ Project	External (ESE)
Weightage(%)	Marks	Marks	Marks	Marks
100%	15	15	30	70

Course code	:	GEODC-201
Course Name	:	Climatology and Oceanography
Semester	:	II

	L	T	P	C

	03			03

Course Objectives

The objectives of this course are:

1. To develop the knowledge of climatology.
2. To know about world climatology.
3. To develop the skill to prepare the project on climatology.

Course Outcome

Upon successful completion of the course a:

Paper code	Paper name	Course outcome
GEODC-201	Climatology and Oceanography	CO1- Students will be recall meaning, scope and importance of climatology. CO2- Students will be able to explain different components of atmosphere. CO3- They will be able to classify world climate classification. CO4-. Now they will be identifying highly climate disturb region. CO5-.They will be able to prepare assignment on world climate. CO6-.Now the students will be able to write about the meaning and factors responsible for the climate change.

CO-PO Mapping

Course	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PO12	PSO 1	PSO 2	PSO 3	PSO 4
CO1	2	3	3	-	-	3	2	3	-	-	1	1	3	3	3	3
CO2	3	3	3	-	2	-	1	3	-	1	1	1	3	3	3	3
CO3	3	3	3	-	-	2	3	2	-	1	2	1	3	3	3	3
CO4	3	3	3	-	-	2	3	3	-	1	2	2	3	3	3	3
													3	3	3	3
CO5	3	3	3	-	2	3	3	3	-	-	-	2	3	3	3	3
	3	3	3	-	2	3	3	3	-	-	1	3	3	3	3	3

Course Contents

UNIT- I

Meaning, scope and development of climatology, Jet Stream, El- Nino, La- Nin, Walkar circulation, precipitation & humidity.

UNIT -II

Air masses-origin, growth, classification, and distribution, Horizontal and Vertical motion of winds. Fronts and front genesis, cyclones and anticyclones; temperate and tropical cyclones;

UNIT -III

Climate classification of Koppen and Thornthwaite. Major Climate types, weather and human behaviour, Weather modification, atmospheric hazards, cloud bursts.

UNIT -IV

Climatic changes- definition &detection, Human impact on global climate, Global Warming, artificial climate and acid precipitation.

Books Recommended :

Text Books:

1. Chorley, R.G. AND Barry, R.G. : Atmosphere, Weather and Climate Methuen & Co. Ltd., London, 1995.
2. Critchfield, H.J.: General Climatology, Prentice Hall of India, New Delhi, 2002.
3. Sidharta, K.: Climatology, Kitab Mahal, New Delhi.
4. Trewartha, G.T. : An Introduction to Climate, McGraw Hill Series in Geography.
5. Miller, A. et al : World Climatology, Elbs and Edward Arnold,1979.
6. https://store.kortext.com/meteorology-climatology
7. https://www.ebooks.com/en-fk/book/210120003/an-introduction-to-climatology/sanjay-kumar/
8. https://www.kobo.com/ww/en/ebook/applied-climatology

Reference Books:

1. Singh, Savindra : Climatology,, Prayag PustakBhawan, Allahabad.:
2. Singh, Savindra, JalvayuVigyan (in Hindi), PrayagPustakBhawan, Allahabad.

Course code	:	GEODL-201			
Course Name	:	**Practical Geography**			
Semester /Year	:	II			
		L	**T**	**P**	**C**
				4	2

Examination Scheme:

Course Objectives:

The objectives of this course are:

1. To introduce about basic concepts of astronomy, celestial bodies and to develop the understanding on cartographic techniques and skills of map projection.
2. At the end of the course students should be able to determine different and appropriate uses of map projection in various aspects of geographic representation.
3. To develop the skill to forecast the Indian daily weather.

Course Outcomes

Upon successful completion of the course:

Paper code	Paper name	Course outcome
GEODL-201	Geography Practical	CO1- Student will learn and prepare the list of different types of maps. CO2- Student will be able to discuss and prepare the outline of map. CO3- They will learn and practiced to complete the map projection. CO4- They will be able to interpret the weather map. CO5-Now students will be able to forecast weather of a region after interpretation of weather map. CO6- Now he will be able to write about projection ad weather maps in detail.

CO-PO Mapping

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
CO1	2	-	-	-	-	3	1	3	-	1	1	3	3	3	3	3
CO2	3	-	3	-	-	2	-	1	-	2	-	1	3	3	3	3
CO3	3	-	3	-	-	2	3	2	-	2	3	2	3	3	3	3
CO4	3	-	3	-	-	2	3	3	-	2	3	3	3	3	3	3
CO5	3	-	3	-	2	1	3	3	2	1	3	3	3	3	3	3
CO6	3	-	3	-	2	1	3	3	2	1	3	3	3	3	3	3
	2.8	-	2.5	-	0.6	1.8	2.2	2.5	0.6	1.5	2.2	2.5	3	3	3	3

3: Highest Correlated, 2: Medium Correlated, 1: Lowest Correlated

Course Contents

Unit -1

Maps- Definition, basic concepts and classification, Map composition.

Unit -2

Map Projections- classification, properties, choice, and merits and demerits.

Unit -3

Construction of Conical projection with one and two standard parallel, Bonne's, cylindrical equal area, Mercator's, and Polar Zenithal Equal Area map projection.

Unit -3

Study and interpretation of Indian Daily Weather Report Maps/reports of January, June and July.

Division of Marks

a. Lab Work-One question from each section with internal choice.

b. Sessional record and viva.

Reading List.

Text Books:

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: *PrayogicBhugol*, Rastogi Publishers.

6. 8. Steers J. A., 1965: *An Introduction to the Study of Map Projections*, University of London.

Reference Book:

1. Singh R. L. and Singh R. P. B., 1999: *Elements of Practical Geography*, Kalyani Publishers

2. Singh R. L., 1998: *PrayogicBhoogolRooprekha*, Kalyani Publications.

1- https://www.amazon.in/Understanding-Practical-Geography-Surveying-Secondary-ebook/dp/B076XDG8QS

1. https://books.google.co.in/books/about/Elements_Of_Practical_Geography.html?id=bFJLYgEACAAJ&redir_esc=y

Websites:

Indian Institute of Surveying & Mapping: http://www.iism.nic.in/
Survey of India Department of Science & Technology: http://www.surveyofindia.gov.in/
Indian National Cartographic Association: https://incaindia.org/
Bhuvan Indian Geo Platform of ISRO: https://bhuvan.nrsc.gov.in/

Bhuvan Indian Geo Platform of ISRO: https://bhuvan.nrsc.gov.in/

Course code	:	GEODC-202			
Course Name	:	Human Geography			
Semester /Year	:	II			
		L	**T**	**P**	**C**
		3			3

Course Objectives:

The objectives of this course are:

1. To introduce and make them understand about different human dimensions related to culture, society, settlement and resources with their types and distribution.
2. The expected learning outcome would be the student will able to understand, identify and describe social, cultural and economic dynamics of society.

Course Outcomes

Upon successful completion of the course a:

Paper code	Paper name	Course outcome
GEODC-202	Human Geography	CO1- Students will recall the definition and branches of Geography. CO2- Now they are capable for examines and predicts the future of man in a particular natural region. CO3- They can classify world races on the basis of different parameters prepared by different geographers. CO4-. They can also categories world races, world religion, world linguistic region by theirselves. CO5-.They will be able to rate the world cultural region. CO6- Now they will be able to compose few analytical lines on world culture, races, language, urban regions, and trends of urbanization.

CO-PO Mapping

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
CO1	2	3	3	2	-	3	3	3	-	3	3	3	3	3	3	3
CO2	3	3	3	1	-	3	3	3	-	3	3	3	3	3	3	3
CO3	3	3	3	2	1	3	3	2	1	3	3	2	3	3	3	3
CO4	3	3	3	3	-	3	3	3	-	3	3	3	3	3	3	3
CO5	3	3	3	-	-	3	3	3	-	3	3	3	3	3	3	3
CO6	3	3	3	-	-	3	3	3	-	3	3	3	3	3	3	3
	2.8	3	3	1.3	0.2	3	3	2.8	0.2	3	3	2.8	3	3	3	3

3: Highest Correlated, 2: Medium Correlated, 1: Lowest Correlated

Course Contents

Unit -1

Definition, Nature, Major Subfields, Contemporary Relevance of Human Geography.

Unit -2

Space and Society: Cultural Regions; Race; Religion and Language

Unit -3

Population: Population Growth and Demographic Transition Theory.

Unit -4

World Population Distribution and Composition (Age, Gender and Literacy). Settlements: Types and Patterns of Rural Settlements; Classification of Urban Settlements; Trends and Patterns of World Urbanization.

Reading List

Text Books:

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- https://www.amazon.in/Introduction-Human-Geography-5th-edn-ebook/dp/B01FDYGTTS

9. https://www.amazon.in/INTRODUCTION-HUMAN-GEOGRAPHY-Jyotiram-Chandrakant-ebook/dp/B08B1QYG4X

Reference Book:

2. Hussain, Majid (2012) Manav Bhugol. Rawat Publications, Jaipur.
3. Hussain, Majid (2012), Human Geography; Rawat Publications, Jaipur.

Course code	:	GEODL-202			
Course Name	:	**Practical Geography**			
Semester /Year	:	**II**			
		L	**T**	**P**	**C**
				4	2

Examination Scheme:

Course Objectives:

The objectives of this course are:

4. To introduce about basic concepts of astronomy, celestial bodies and to develop the understanding on cartographic techniques and skills of map projection.

Study and interpretation of Indian Daily Weather Report Maps/reports of January, June and July.

Division of Marks

a. Lab Work-One question from each section with internal choice.

b. Sessional record and viva.

Reading List.

Text Books:

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: *PrayogicBhugol*, Rastogi Publishers.

6. 8. Steers J. A., 1965: *An Introduction to the Study of Map Projections*, University of London.

Reference Book:

1. Singh R. L. and Singh R. P. B., 1999: *Elements of Practical Geography*, Kalyani Publishers

2. Singh R. L., 1998: *PrayogicBhoogolRooprekha*, Kalyani Publications.

1- https://www.amazon.in/Understanding-Practical-Geography-Surveying-Secondary-ebook/dp/B076XDG8QS

4. https://books.google.co.in/books/about/Elements_Of_Practical_Geography.html?id=bFJLYgEACAAJ&redir_esc=y

Websites:

Indian Institute of Surveying & Mapping: http://www.iism.nic.in/
Survey of India Department of Science & Technology: http://www.surveyofindia.gov.in/
Indian National Cartographic Association: https://incaindia.org/
Bhuvan Indian Geo Platform of ISRO: https://bhuvan.nrsc.gov.in/

Bhuvan Indian Geo Platform of ISRO: https://bhuvan.nrsc.gov.in/

1. https://www.indianculture.gov.in/ebooks/india-regional-geography

Course Outcomes

Reading List

Text Books:

1. Blij H. J. De, 1971: *Geography: Regions and Concepts*, John Wiley and Sons.

2. Claval P.l, 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- Roger M Minshull, 1967; Regional Geography; Hutchinson University Library.

10. Singh R.L., 1971, India: Regional Geography; National Geographyical Society of India, Varanasi.

11. Douglas L Johnson, Viola Haarmann, Merrill L Johnson, World Regional Geography: A Development Approach, 11th edition, July 2015, Pearson Publication.

Reference Book:

1. Alka Gautam, Regional Geography of the world, Sharda Pustak Bhawan, Allahabad.

1. https://www.pearson.com/store/p/world-regional-geography-a-development-approach/P100002140235/9780137612697

2. https://www.indianculture.gov.in/ebooks/india-regional-geography

Course code	:	GEOGE-201			
Course Name	:	Environmental Geography			
Semester /Year	:	II			
		L	**T**	**P**	**C**
		4			4

Upon successful completion of the course a:

Paper code	Paper name	Course outcome
GEOSC-201	Regional Planning and development(Skill Enhancement Course)	CO1- Students will find the concept of region CO2- Students will be able to compare between different types of region. CO3- They will be able to classify different region on the basis of different natural and cultural components. CO4-. They will justify the limitation of a particular region. CO5-.They will be able to prepare a plan of natural regions in a political boundary as well as political regions. CO6- They will be able to prepare a design for the development region.

CO-PO Mapping

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO3
CO1	3	-	3	1	1	-	3	2	-	-	3	2	3	3	3	3
CO2	3	-	3	1	1	-	3	2	-	-	3	2	3	3	3	3
CO3	3	-	3	2	-	-	3	2	-	-	3	2	3	3	3	3
CO4	3	-	3	3	-	-	3	3	-	-	2	3	3	3	3	3
CO5	3	-	3	1	1	-	3	3	-	-	1	3	3	3	3	3
CO6	2	-	3	1	1	-	3	3	-	-	1	3	3	3	3	3
	2.9		3	1.5	0.6		3	2.5	-	-	1.6	2.5	3	3	3	3

3: Highest Correlated, 2: Medium Correlated, 1: Lowest Correlated

Course Contents

Unit -1

Meaning, Concept, Need and Types of Regional Planning.

Unit -2

Regionalization of India for Planning (Agro climatic Zones).

Unit -3

Models for Regional Planning: Growth Pole Theory; Core Periphery Model and Growth Foci Concept in Indian Context.

Unit -4

Backward Regions and Regional Plans- Special Area. Development Plans in India; DVC & Tehri Dam -The Success Story and the Failures; - NITI Aayog.

Course Outcomes
Upon successful completion of the course a:

Paper code	Paper name	Course outcome
GEOGE-201	Environmental Geography	CO1- Students will find environmental issues. CO2- Students will be able to examine different types of environments, ecological setting and their issues and challenges. CO3- Now they will be able to explain role of environmental conservation and management. CO4-. They will be able to prepare the project on environment. CO5-. They will be able to evaluate the loss of property and life in various regions and various type of disaster. CO6- They will be able to write about various program and plans introduced by government.

CO-PO Mapping

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	-	3	-	-	3	3	3	-	3	-	1
CO2	3	-	3	-	2	-	3	3	2	-	-	2
CO3	3	-	3	-	-	3	3	2	-	3	-	3
CO4	3	-	3	-	-	3	3	3	-	3	-	3
CO5	3	-	3	-	2	3	3	3	2	3	-	3

3: Highest Correlated, 2: Medium Correlated, 1: Lowest Correlated

Course Contents:

Unit -1

Environmental Geography: Concepts and Approaches; Ecosystem – Concept and Structure; Ecosystem Functions. **[No. of Hours: 14]**

Unit -2

Human-Environment Relationship in Equatorial, Desert, Mountain and Coastal Regions. **[No. of Hours: 12]**

Unit -3

Environmental Problems and Management: Air Pollution; Biodiversity Loss; Solid and Liquid Waste. **[No. of Hours: 12]**

Unit -4

Environmental Programmes and Policies: Developed Countries; Developing Countries. New Environmental Policy of India; Government Initiatives.

[No. of Hours: 10]

Reading List

Text Books:

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, R.B. and Hietala, R. (Eds.) (2014) Livelihood security in North-western Himalaya: Case studies from changing socio-economic environments in Himachal Pradesh.

8. Teli,BL, 2005, Paryavaraniya Adhayan, College Book Depot, Jaipur

Reference Book:

1. Singh, Savindra 2001. *Paryavaran Bhugol,* Prayag Pustak Bhawan, Allahabad. (in Hindi)
2. Singh, Savindra 2001. *Paryavaran Bhugol,* Prayag Pustak Bhawan, Allahabad. (in English)

B.A./B.Sc. Geography Third Semester

S. No.	Course Category	Course Code	Course Name	Periods				Evaluation scheme		Subject Total
				L	T	P	C	Sessional (Internal)	External (ESE)	
Theory										

Semester /Year : III				
	L	T	P	C
	3			3

Course Objectives

The objectives of this course are:

1. Students will be able to know the meaning, causes, impact of environmental hazards, vulnerability and disasters.
2. They will also able to know different types of disasters in India.
3. Now they will able to know the role of different government and NGA in India to control the disasters.

Course Outcomes

Upon successful completion of the course a:

Paper code	Paper name	Course outcome
GEODC-301	Climate Change, Hazard and Disaster Management	CO1- Students will able to describe about causes and impact of disaster management. CO2- Students will be able compare between disaster and hazards CO3- They will be able to examine the role of different government and NGA in India to control the disasters. CO4-. They will be able to create different types of disasters in India. CO5-.They will know oceanic resources, importance of tides and currents. CO6- CO6- They will be able to write and prepare a map for the disaster affected region of their state and country also will focus on dos ad Don't.

CO-PO Mapping

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	3	-	3	-	3	3	3	-	3	3
CO2	3	3	3	-	3	-	3	3	3	-	3	3
CO3	3	3	3	-	3	-	3	2	3	-	3	2
CO4	3	2	3	-	3	-	3	3	3	-	3	3
CO5	3	1	3	-	3	-	2	3	3	-	3	3
CO6	3	1	3	-	3	-	2	3	3	-	3	3

3: Highest Correlated, 2: Medium Correlated, 1: Lowest Correlated

Course Contents

1. Hazards, Risk, Vulnerability and Disasters: Definition and Concepts.

2. Disasters in India: (a) Causes, Impact, Distribution and Mapping: Flood, Landslide, Drought.

3. Disasters in India: (b) Causes, Impact, Distribution and Mapping: Earthquake, Tsunami and Cyclone.

4. Human induced disasters: Causes, Impact, Distribution and Mapping.

5. Response and Mitigation to Disasters: Mitigation and Preparedness, NDMA and

NIDM; Indigenous Knowledge and Community-Based Disaster Management; Do's and Don'ts DuringDisasters.

Reading List

Text Books:

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. https://www.kobo.com/in/en/ebook/disaster-management

5. https://www.barnesandnoble.com/b/free-ebooks/ebooks-nook/public-health-safety/emergency-disaster-management-policies/_/N-ry0Z8qaZ16uo

6. https://www.amazon.in/Disaster-Management-S-C-Sharma-ebook/dp/B08RJRDCSY

7. disaster-management-handbook.pdf

Reference Book:

1. Singh, R. B. Disaster Management. New Delhi: Rawat Publications., 2008.
Narayan, B. Disaster Management, New Delhi: A.P.H. Publishing Corporation ,2009

Practical-III

Course code	:	**GEODL-301**			
Course Name	:	**Practical Geography**			
Semester /Year	:	**III**			
	L	**T**	**P**	**C**	
			2	1	

Course Objectives:

The objectives of this course are:

1. To enhance the potential of advance statistical techniques and its application in geographical studies.
2. Students will learn about appropriate use of statistical techniques in varying avenues of geographical studies.

Course Outcomes

Upon successful completion of the course a:

Paper code	Paper name	Course outcome
GEODL-301	Geography Practical	CO1- Students will find the use of statistical methods and techniques in the field of geography. CO2- Students will be able to know the importance and now they can compare between different statistical techniques. CO3- They will be able to examine various methods and techniques in Geography. CO4-. They will be able to evaluate the data by short cut and easy method. CO5-.They will be to express statistical data of various fields by various statistical techniques as mean, median, mode, diagrams and graphs. C06- They will be to write with example from society about various statistical data.

CO-PO Mapping

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	3	-	3	-	3	3	3	-	3	3
CO2	3	3	3	-	3	-	3	3	3	-	2	3
CO3	3	3	3	-	3	-	3	2	3	-	1	2
CO4	3	3	3	-	3	-	3	3	3	-	1	3
CO5	3	3	3	-	3	-	3	3	3	-	2	3

3: Highest Correlated, 2: Medium Correlated, 1: Lowest Correlated

Course Contents

Unit -1

Meaning, scope, types and uses of statistical method and data in Geography.

Unit -2

Primary and secondary data and their sources, methods of primary data collection, classification of statistical data and tabulation.

Unit -3

Graph and diagram; Frequency curve, histogram and polygon, Measures of Central Tendency- Mean, Median, Mode.

Unit -4

Measures of dispersion- Quartile, Standard Deviation and Coefficient of Variation. Coefficient of Correlation- Karl Pearson's methods, Scatter Diagrams.

Division of Marks

a. Lab Work-One question from each section with internal choice.

b. Sessional record and viva.

Reading List

Text Books:

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.

Reference Book:

Text Books:

1. Singh R. L. and Singh R. P. B., 1999: *Elements of Practical Geography*, Kalyani Publishers

2. Singh R. L., 1998: *Prayogic Bhoogol ki Rooprekha*, Kalyani Publications.

1- https://www.amazon.in/Understanding-Practical-Geography-Surveying-Secondary-ebook/dp/B076XDG8QS

2.https://books.google.co.in/books/about/Elements_Of_Practical_Geography.html?id=bFJLYgEACAAJ&redir_esc=y

Websites:

Indian Institute of Surveying & Mapping: http://www.iism.nic.in/
Survey of India Department of Science & Technology: http://www.surveyofindia.gov.in/

Indian National Cartographic Association: https://incaindia.org/
Bhuvan Indian Geo Platform of ISRO: https://bhuvan.nrsc.gov.in/

Course code	:	GEODC-302			
Course Name	:	Geography of India			
Semester /Year	:	III			
		L	**T**	**P**	**C**
		3			3

Course Objectives :The objectives of this course are:

1. To provide detail knowledge about physiography, demography and cultural attributes of Indian landscapes, Agriculture, economy, resource distribution.
2. Now there would be conceptual clarity about physical, demographic, social, cultural, agriculture and economic spheres of Indian regions.

Course Outcomes

Upon successful completion of the course a:

Paper code	Paper name	Course outcome
GEODC-302	Geography of India	CO1- Students will able to provide detail knowledge about physiographic divisions of India. CO2- Students will be able to explain and compare between different regions of India. CO3- They will be able to clarity about physical, demographic, social, cultural, agriculture and economic spheres of Indian regions. CO4-. They will able to prepare maps of physical, demographic, social, cultural, agriculture and economic spheres of Indian regions. CO5- They will be able to prepare and explain the plan for the development of various fields of Geography in India. CO6- Now students will be able to analyze the demographic and other attributes of Uttrakhand and India.

CO-PO Mapping

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	3	-	-	3	-	1	-	3	-	1
CO2	3	2	2	-	-	2		1	-	2	-	1
CO3	3	2	3	-	-	2	3	2	-	2	3	2
CO4	3	2	3	-	-	2	3	2	-	2	3	2

3: Highest Correlated, 2: Medium Correlated, 1: Lowest Correlated

Course Contents

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. Economy of Uttarakhand.

Reading List

Text Books:

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.

9.Rana, Tejbir Singh, 2015, Diversity of India , R.K. Books, Delhi.

10. https://www.gale.com/ebooks/9781615302024/understanding-india-the-geography-of-india

11. https://www.indianculture.gov.in/ebooks/india-regional-geography

Practical-III

Course code	:	**GEODL-302**			
Course Name	:	**Practical Geography**			
Semester /Year	:	**III**			
		L	**T**	**P**	**C**
				2	1

Course Objectives:

The objectives of this course are:

1. To enhance the potential of advance statistical techniques and its application in geographical studies.
2. Students will learn about appropriate use of statistical techniques in varying avenues of geographical studies.

Course Outcomes

Upon successful completion of the course a:

Paper code	Paper name	Course outcome
GEODL-302	Geography Practical	CO1- Students will find the use of statistical methods and techniques in the field of geography. CO2- Students will be able to know the importance and now they can compare between different statistical techniques. CO3- They will be able to examine various methods and techniques in Geography. CO4-. They will be able to evaluate the data by short cut and easy method. CO5-.They will be to express statistical data of various fields by various statistical techniques as mean, median, mode, diagrams and graphs. C06- They will be to write with example from society about various statistical data.

CO-PO Mapping

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	3	-	3	-	3	3	3	-	3	3
CO2	3	3	3	-	3	-	3	3	3	-	2	3
CO3	3	3	3	-	3	-	3	2	3	-	1	2
CO4	3	3	3	-	3	-	3	3	3	-	1	3
CO5	3	3	3	-	3	-	3	3	3	-	2	3

3: Highest Correlated, 2: Medium Correlated, 1: Lowest Correlated

Course Contents

Unit -1

Meaning, scope, types and uses of statistical method and data in Geography.

Unit -2

Primary and secondary data and their sources, methods of primary data collection, classification of statistical data and tabulation.

Unit -3

Graph and diagram; Frequency curve, histogram and polygon, Measures of Central Tendency- Mean, Median, Mode.

Unit -4

Measures of dispersion- Quartile, Standard Deviation and Coefficient of Variation. Coefficient of Correlation- Karl Pearson's methods, Scatter Diagrams.

Division of Marks

a. Lab Work-One question from each section with internal choice.

b. Sessional record and viva.

Reading List

Text Books:

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.

Reference Book:

Text Books:

1. Singh R. L. and Singh R. P. B., 1999: *Elements of Practical Geography*, Kalyani Publishers

2. Singh R. L., 1998: *Prayogic Bhoogol ki Rooprekha*, Kalyani Publications.

1- https://www.amazon.in/Understanding-Practical-Geography-Surveying-Secondary-ebook/dp/B076XDG8QS

2.https://books.google.co.in/books/about/Elements_Of_Practical_Geography.html?id=bFJLYgEACAAJ&redir_esc=y

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Indian Institute of Surveying & Mapping: http://www.iism.nic.in/
Survey of India Department of Science & Technology: http://www.surveyofindia.gov.in/
Indian National Cartographic Association: https://incaindia.org/
Bhuvan Indian Geo Platform of ISRO: https://bhuvan.nrsc.gov.in/

Geography of Tourism

Course code	:	**GEOGE-301**			
Course Name	:	**Tourism Geography**			
Semester /Year	:	**3**			
		L	**T**	**P**	**C**
		4			4

Course Objectives

The objectives of this course are:

1. Students will understand the concept, parameters and types of tourism.
2. They will also study the impact of tourism on economy and society.
3. They will learn about the tourist places of different region of the country.

Course Outcomes

Upon successful completion of the course a:

Paper code	Paper name	Course outcome
GEOGE-301	**Tourism Geography**	CO1- Students will learn about concept, parameters and types of tourism. CO2- Students will be able to explain the impact of tourism on economy and society. CO3- They will be able to draw and find the tourist places in the country. CO4-. They will be able to differences between Himalayan tourism and Desert region tourism. CO5-.They will be able to prepare project on Tourism. CO6- They will be able to write and go for the case study in various tourist region of the country.

CO-PO Mapping

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	3	-	3	-	3	3	-	-	1	3
CO2	3	3	3	-	3	-	3	3	-	1	1	1
CO3	3	3	3	-	3	-	3	2	-	1	2	1
CO4	3	3	3	-	3	-	3	3	2	1	2	2
CO5	3	3	3	-	3	-	3	3	2	-	-	-

3: Highest Correlated, 2: Medium Correlated, 1: Lowest Correlated

Course Contents

1. Concepts, Nature and Scope; Inter-Relationships of Tourism, Recreation and Leisure; Geographical

Parameters of Tourism by Robinson.

2. Type of Tourism: Nature Tourism, Cultural Tourism, Medical Tourism, Pilgrimage

3. Recent Trends of Tourism: International and Regional; Domestic (India); Eco-

Tourism, Sustainable Tourism, Meetings, Incentives, Conventions and Exhibitions (MICE)

4. Impact of Tourism: Economy; Environment; Society

5. Tourism in India: Tourism Infrastructure; Case Studies of Himalaya, Desert and Coastal and Heritage; National Tourism Policy.

Reading List

Text Books:

1. Dhar, P.N. (2006) International Tourism: Emerging Challenges and Future Prospects. Kanishka, NewDelhi.

2. Hall, M. and Stephen, P. (2006) Geography of Tourism and Recreation – Environment, Place and Space, Routledge, London.

3. Kamra, K. K. and Chand, M. (2007) Basics of Tourism: Theory, Operation and Practise, Kanishka

Publishers, Pune.

4. Page, S. J. (2011) Tourism Management: An Introduction, Butterworth-Heinemann-USA. Chapter 2.

5. Raj, R. and Nigel, D. (2007) Morpeth Religious Tourism and Pilgrimage Festivals Management: An International perspective by, CABI, Cambridge, USA.

6. Tourism Recreation and Research Journal, Center for Tourism Research and Development, Lucknow.

8- Singh Jagbir (2014) "Eco-Tourism" Published by - I.K. International Pvt. Ltd.
9- https://books.google.co.in/books/about/An_Introduction_to_the_Geography_of_Tour.html?id=8jRjWvpQHa8C&redir_esc=y
10- https://www.ebooks.com/en-in/95756743/geography-of-tourism/peter-mason/?_c=1
11- https://www.kobo.com/ww/en/ebook/tourism-geography-5
12- https://www.worldcat.org/title/geography-of-tourism/oclc/1130105847

Reference Book:

1. Singh, Savindra 2001. *Paryavaran Bhugol,* Prayag Pustak Bhawan, Allahabad. (in Hindi)
2. Singh, Savindra 2001. *Paryavaran Bhugol,* Prayag Pustak Bhawan, Allahabad. (in English)

Course code	**: GEOSC-301**				
Course Name	**: INDIA – LOCATIONAL ASPECTS (MAP) Skill Enhancement Course**				
Semester	**: 3**				
		L	**T**	**P**	**C**
		2			**2**

Course Objectives

The objectives of this course are:

1. The paper is designed to acquaint the students with the importance of location as one of the important aspects of geographical studies.
2. The aim to promote awareness among students about Atlas.
3. They will be able to get job in the department of Survey of India, and other concern private department.

Course Outcome

Paper code	Paper name	Course outcome
GEOSC-301	India – Locational Aspects (Map)	CO1- Students will able to recall the detail knowledge about physiographic divisions. CO2- Students will be able to explain and compare between

		different regions of India. CO3- They will be able to clarity about physical, climatic and natural vegetation demographic, social, cultural, agriculture and economic spheres of Indian regions. CO4-. They will able to prepare maps of physical, demographic, social, cultural, agriculture and economic spheres of Indian regions. CO5- They will be able to present critical description of different cultural landscape and their development. CO6- They will be able to prepare the map and explain them in reference to various fields of Geography in India.

CO-PO Mapping

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	-	-	-	-	3	1	3	-	3	1	3
CO2	3	-	3	2	3	2		1	-	2	-	1
CO3	3	-	3	2	3	2	3	2	-	2	-	2
CO4	3	-	3	2	3	2	3	3	-	2	-	3
CO5	3	-	3	2	3	2	3	3	-	2	-	3
CO6	3	-	3	2	3	2	3	3	-	2	-	3

Note : The paper consists of four units.4 long,5 short & 10 very short questions will be set from all unit. The candidates will be required to attempt all section.

There will be two parts of this course:

(A) The paper consists of four units.4 long,5 short & 10 very short questions will be set from all unit. The candidates will be required to attempt all section. The paper is map oriented.

(B) An out line map of India will be provided to the students and they will have to mark locations on it. 10 locations will be given and 02 marks for each correct location.

Course Contents :

Physical –

Mountain and ranges, rivers, forest, soil, and natural regions.

Cultural – State and Capitals, Impotant Cities, Population, Rural –Urban, tribal, Planning regions.

Economic –

Agricultural regions Cities/ belts, Industrial, regions and complexes, Power plants, Hydro Power Projects, Important ports and transport routes, important resources.

Other –
Bio diversity, National Parks.

Reading List Books:

Text Books:

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*, Vikasb , 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.*

9.Rana, Tejbir Singh, 2015, Diversity of India , R.K. Books, Delhi.

10. https://www.gale.com/ebooks/9781615302024/understanding-india-the-geography-of-india

11. https://www.indianculture.gov.in/ebooks/india-regional-geography

12. https://sarkaribooklet.com/india-atlas-book-pdf-in-hindi/
13. https://ishwarahir.in/atlas-book-pdf/

Reference books.

1. . Hussain M., 1992: *Geography of India*, Tata Mc Graw Hill Education.

2. INDIA A COMPREHENSIVE GEOGRAPHY, D.R. Khullar, Kalyani Publication.

Geography, Methuen.

Websites:

Indian Institute of Surveying & Mapping: http://www.iism.nic.in/

Survey of India Department of Science & Technology: http://www.surveyofindia.gov.in/

Indian National Cartographic Association: https://incaindia.org/

Bhuvan Indian Geo Platform of ISRO: https://bhuvan.nrsc.gov.in/

B.A./B.Sc. Geography ~~Second~~ 4th Semester

S. No.	Course Category	Course Code	Course Name	Periods				Evaluation scheme		Subject Total
				L	T	P	C	Sessional (Internal)	External (ESE)	
Theory										
1	Major Core	GEODC-401	**Geographical Thought**	3			3	30	70	100
Practical										
2	Major Core	GEODL-401	Practical Geography			2	1	30	70	100
		Total		3		2	4	60	140	200
Theory										
Major Elective		GEODC-402	Geography of the Himalaya	3			3	30	70	100
Practical										
Major Elective		GEODL-402	Practical Geography			2	1	30	70	100
	Total			3		2	4	60	140	200
Theory										
Vocational Coarse		GEOSC-401	**INDIA – LOCATIONAL ASPECTS (MAP) Skill Enhancement Course**	2			2	30	70	100
Theory										
Open Elective		GEOGE-401	Geography of India	4			4	30	70	100
	Total			6			6	60	140	200

L – Lecture, T – Tutorial, P – Practical, C – Credit

Examination Scheme:

Components	I[st] internal	II[nd] Internal	Presentation/ Assignment/ Project	External (ESE)
Weightage(%)	Marks	Marks	Marks	Marks
100%	15	15	30	70

GEODC-401	Geographical	CO1- Students will be recall the definition, scope, and				
Course code	: GEODC-401		L	T	P	C
Course Name	: Geographical Thought		3			3
Semester	: 4					

Cour

se Objectives: The objectives of this course are:

1. To make them understand about historical development of geographical concepts, philosophies and approaches.
2. The learning outcome of this course would be comprehended, correlate and connect geographical ideas and concepts with historical as well as contemporary context.

Course Outcomes

Upon successful completion of the course a:

CO-PO Mapping

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	-	2	-	3				3	-	3	3
CO2	2	-	2	2	-	2	-	3	3	-	3	3
CO3	3	-	1	-	-	-	-	2	3	-	2	2
CO4	2	-	3	-	-	3	2	1	3	-	3	3
CO5	2	-	3	1	3	3	3	3	3	-	3	3
CO6	3	-	1	-	-	-	-	-		-	2	2

3: Highest Correlated, 2: Medium Correlated, 1: Lowest Correlated

	Thought	branches of geography. CO2- Students will be able to explain the importance and scope of Geography. CO3- They will be able to classify world Geography into various historical time period. CO4-. Now they will be identifying various world famous Geographer. CO5-They will be able to prepare an assignment on the various fields of Geography. CO6- Student can be able to write about the contribution of various geographers from different time period of history of geography.

Course Contents

Unit -1

Definition, Nature and Scope of Geography, Branches and sub branches of Geography, Basic concepts of Geography. **[No. of Hours: 12]**

Unit -2

Contribution of Greek and Roman Geographers-Ptolemy and Strabo. Arab Geographers. Contribution of Geographical knowledge in ancient and medival India, Renaissance in Geography, Discoveries and inventions, Contribution of Varenius and Immanuel Kant. **[No. of Hours: 12]**

Unit -3

German and French School of Geography; Humbodlt ,Ritter,Ratzel, Hattner, Hartshorne ,Blache, Brunhes and Dimanjia. **[No. of Hours: 12]**

Unit- 4

Anglo-American School of Geography- Davis, EC. Semple, Huntington, Isaiah Bowman, Mackinder, and Stamp.

Geography in India (after independence); recent trends in Geography; quantitative geography, use of statistical method and computer. **[No. of Hours: 12]**

Selected Readings:

Text Books:

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 Idias. 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. – BhaugolikVichardharayen (Hindi) – Sahitya Bhawan Pub. Agra.

7. Taylor. G. Geography in Twentieth Century; London.

8. *Jagdish Singh - Bhaugolik Chintan ka Kramvikas (Hindi) Gyanodaya , Gorakhpur.*

1. https://www.kobo.com/us/en/ebook/geographical-thought

2. Evolution of Geographical Thought – E-Book By ... - Mithila Craft

Reference Book:

1. Hussain Majid - Evolution of Geographical Thought (English And Hindi) Rawat Publication jaipur.

Course code : GEODL-401				
Course Name : Geography Practical				
Semester : 4				
	L	**T**	**P**	**C**
			1	**1**

Course Objectives: The objectives of this course are:

1. To enhance the potential of advance statistical techniques and its application in geographical studies.
2. Now students will able to appropriate use of statistical techniques in varying avenues of geographical studies.
3. They will also understand the construction of Geological profile and uses of them.

Course Outcomes

Upon successful completion of the course a:

Paper code	Paper name	Course outcome
GEODL-401	Practical Geography	CO1 Students will enhance the of potential advance statistical techniques and its application in geographical studies. CO2- Students will be able to explain the Now students will able to appropriate use of statistical techniques in varying avenues of geographical studies. CO3-They will be to prepare all Geological maps. CO4-. They will be able to present different geographical phenomena

		by distribution map. CO5-.They will be able to prepare different types of maps as Geological map, topographical map etc. CO6-.Now students will be able to prepare a frame for various type of profiles in different region of Himalaya.

CO-PO Mapping

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	-	-	-	-	1	1	3	-	3	1	3
CO2	3	-	3	-	-	2		1	-	2	2	1
CO3	3	-	3	-	-	1	3	2	-	2	2	2
CO4	3	-	3	-	-	2	3	3	-	2	1	3
CO5	3	-	3	-	2	1	3	3	2	1	1	3
CO6	3	-	3	-	2	1	3	3	2	1	3	3

3: Highest Correlated, 2: Medium Correlated, 1: Lowest Correlated

Course Contents:

Unit -1

Statistical Diagrams- Simple, Compound and Multiple Bar Diagram, Circle diagram. **[No. of Hours: 14]**

Unit -2

Simple and polyline graph, Hyther graph and Climograph. **[No. of Hours: 14]**

Unit -3

Distribution maps meaning, importance and uses- Isopleths, Choropleth and Dot method. **[No. of Hours: 14]**

Unit -4

Identification of rock outcrops, bedding planes, determinants of dip. (Geological cross section drawing) **[No. of Hours: 14]**

Division of Marks

a. Lab Work-One question from each section with internal choice.

b. Sessional record and viva.

Note: Lab Work-one question from each section with internal choice (duration three hours)

Reading List

Text Books:

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: *PrayogicBhugol*, Rastogi Publishers.

6. Steers J. A., 1965: *An Introduction to the Study of Map Projections*, University of London.

7. https://www.amazon.in/Understanding-Practical-Geography-Surveying-Secondary-ebook/dp/B076XDG8QS

8.https://books.google.co.in/books/about/Elements_Of_Practical_Geography.html?id=bFJLYgEACAAJ&redir_esc=y

Reference Book:

1. Singh R. L. and Singh R. P. B., 1999: *Elements of Practical Geography*, Kalyani Publishers

2. Singh R. L., 1998: *Prayogic Bhoogol ki Rooprekha*, Kalyani Publications.

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Survey of India Department of Science & Technology: http://www.surveyofindia.gov.in/
Indian National Cartographic Association: https://incaindia.org/
Bhuvan Indian Geo Platform of ISRO: https://bhuvan.nrsc.gov.in/

Geography of the Himalaya

Course code	:	**GEODC-402**
Course Name	:	**Geography of the Himalaya**
Semester /Year	:	**IV**

	L	T	P	C
	6			6

Course Objectives

The objectives of this course are:

1. To provide the knowledge of Himalaya to the students.
2. To give the information regarding economy of Himalaya.

3. To give the knowledge to the students regarding demographic composition of Himalayan states.

Course outcomes (COs):
Upon successful completion of the course a:

Paper code	Paper name	Course outcome
GEODC-402	Geography of the Himalaya	CO1- Students will recall Himalayan identity. CO2- Students will be able to know the Himalayan location on the map of India. CO3- They will be able to illustrate the Himalayan identity. CO4-. They will be able to evaluate government programs and policies in Himalayan region. CO5-.They will be able to design the map of Himalayan region. CO6- Students will be able to write the description and give their view on mountain developing policies introduced by center and state government.

CO-PO Mapping

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	-	-	-	-	3	1	3	-	3	-	1
CO2	3	-	-	-	2	-	1	3	-	2	-	1
CO3	3	-	-	-	-	2	3	2	-	2	3	2
CO4	3	-	-	-	-	2	3	3	-	2	3	2
CO5	3	-	-	-	2	1	3	3	3	-	3	3

3: Highest Correlated, 2: Medium Correlated, 1: Lowest Correlated

Course Contents

Unit-1

Geo- physical identity; origin of Himalaya and its structure. Climate; natural vegetation; drainage.

Unit-2

Demography and Economy – Distribution, density and growth of population.

Unit-3

Economy – Agriculture, Industry, Horticulture,Tourism and power projects.

Unit-4

Geographical account of western, central and eastern Himalaya.
Mountain Developing and Policy.

Text Books:

1. Lal, J.S.&Moddle, : The Himalaya- Aspect of Change A.D
2. Bose, S.C. : Land and people of the Himalaya.
3. Kayastha, S. : The Himalayan Beas Basin.
4. Singh, T.V.(ed.) : Mountain and Development.
5. Singh, O.P.(ed.) : The Himalaya – Nature, Man & Culture

6. Nityanand & Kumar, K. : The Holy Himalaya – Geographical Interpretation of Garhwal Himalaya.
7. Kharkwal, S.C.: Uttarakhand – Physico – Culture Complex.
8. Maithani, D.D. : Central Himalaya : Ecology, Environmental Resources & Development.
9. Bhatt H.P. & Bhatt Sangita : Environmental Dimensions of Rural Settlements in the Himalaya in 1993.
10. https://archive.org/details/geographyofhimal0000enay
11. https://www.researchgate.net/publication/305650430_Geography_of_Himalaya

Reference Books:

1. Geography of the Himalaya, Ahmad Enayat, Kalyani Publishers; 1992
2. Rawat, M.S.S. (ed.) : Central Himalaya – Environment Development Vol. I & II.

Course code	**: GEODL-402**				
Course Name	**: Geography Practical**				
Semester	**: 4**	**L**	**T**	**P**	**C**
				1	1

Course Objectives: The objectives of this course are:

1. To enhance the potential of advance statistical techniques and its application in geographical studies.
2. Now students will able to appropriate use of statistical techniques in varying avenues of geographical studies.
3. They will also understand the construction of Geological profile and uses of them.

Course Outcomes
Upon successful completion of the course a:

Paper code	Paper name	Course outcome
GEODL-402	Practical Geography	CO1 Students will enhance the of potential advance statistical techniques and its application in geographical studies. CO2- Students will be able to explain the Now students will able to appropriate use of statistical techniques in varying avenues of geographical studies. CO3-They will be to prepare all Geological maps. CO4-. They will be able to present different geographical phenomena by distribution map. CO5-.They will be able to prepare different types of maps as Geological map, topographical map etc.

		CO6-.Now students will be able to prepare a frame for various type of profiles in different region of Himalaya.

CO-PO Mapping

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	-	-	-	-	1	1	3	-	3	1	3
CO2	3	-	3	-	-	2		1	-	2	2	1
CO3	3	-	3	-	-	1	3	2	-	2	2	2
CO4	3	-	3	-	-	2	3	3	-	2	1	3
CO5	3	-	3	-	2	1	3	3	2	1	1	3
CO6	3	-	3	-	2	1	3	3	2	1	3	3

3: Highest Correlated, 2: Medium Correlated, 1: Lowest Correlated

Course Contents:

Unit -1

Statistical Diagrams- Simple, Compound and Multiple Bar Diagram, Circle diagram. **[No. of Hours: 14]**

Unit -2

Simple and polyline graph, Hyther graph and Climograph. **[No. of Hours: 14]**

Unit -3

Distribution maps meaning, importance and uses- Isopleths, Choropleth and Dot method. **[No. of Hours: 14]**

Unit -4

Identification of rock outcrops, bedding planes, determinants of dip. (Geological cross section drawing) **[No. of Hours: 14]**

Division of Marks

a. Lab Work-One question from each section with internal choice.

b. Sessional record and viva.

Note: Lab Work-one question from each section with internal choice (duration three hours)

Reading List

Text Books:

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: *PrayogicBhugol*, Rastogi Publishers.

6. Steers J. A., 1965: *An Introduction to the Study of Map Projections*, University of London.

7. https://www.amazon.in/Understanding-Practical-Geography-Surveying-Secondary-ebook/dp/B076XDG8QS

8.https://books.google.co.in/books/about/Elements_Of_Practical_Geography.html?id=bFJLYgEACAAJ&redir_esc=y

Reference Book:

1. Singh R. L. and Singh R. P. B., 1999: *Elements of Practical Geography*, Kalyani Publishers

2. Singh R. L., 1998: *Prayogic Bhoogol ki Rooprekha*, Kalyani Publications.

Websites:

Indian Institute of Surveying & Mapping: http://www.iism.nic.in/
Survey of India Department of Science & Technology: http://www.surveyofindia.gov.in/
Indian National Cartographic Association: https://incaindia.org/
Bhuvan Indian Geo Platform of ISRO: https://bhuvan.nrsc.gov.in/

Course code	**: GEOSC-401**				
Course Name	**: INDIA – LOCATIONAL ASPECTS (MAP) Skill Enhancement Course**				
Semester	**: 3**				
		L	**T**	**P**	**C**
		2			**2**

Course Objectives

The objectives of this course are:

4. The paper is designed to acquaint the students with the importance of location as one of the important aspects of geographical studies.
5. The aim to promote awareness among students about Atlas.
6. They will be able to get job in the department of Survey of India, and other concern private department.

Course Outcome

Paper code	Paper name	Course outcome
GEOSC-401	India – Locational Aspects (Map)	CO1- Students will able to recall the detail knowledge about physiographic divisions. CO2- Students will be able to explain and compare between different regions of India. CO3- They will be able to clarity about physical, climatic and natural vegetation demographic, social, cultural, agriculture and economic spheres of Indian regions. CO4-. They will able to prepare maps of physical, demographic, social, cultural, agriculture and economic spheres of Indian regions. CO5- They will be able to present critical description of different cultural landscape and their development. CO6- They will be able to prepare the map and explain them in reference to various fields of Geography in India.

CO-PO Mapping

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	-	-	-	-	3	1	3	-	3	1	3
CO2	3	-	3	2	3	2		1	-	2	-	1
CO3	3	-	3	2	3	2	3	2	-	2	-	2
CO4	3	-	3	2	3	2	3	3	-	2	-	3
CO5	3	-	3	2	3	2	3	3	-	2	-	3
CO6	3	-	3	2	3	2	3	3	-	2	-	3

Note : The paper consists of four units.4 long,5 short & 10 very short questions will be set from all unit. The candidates will be required to attempt all section.

There will be two parts of this course:

(C) The paper consists of four units.4 long,5 short & 10 very short questions will be set from all unit. The candidates will be required to attempt all section. The paper is map oriented.

(D) An out line map of India will be provided to the students and they will have to mark locations on it. 10 locations will be given and 02 marks for each correct location.

Course Contents :

Physical –

Mountain and ranges, rivers, forest, soil, and natural regions.

Cultural – State and Capitals, Impotant Cities, Population, Rural –Urban, tribal, Planning regions.

Economic –
Agricultural regions Cities/ belts, Industrial, regions and complexes, Power plants, Hydro Power Projects, Important ports and transport routes, important resources.
Other –
Bio diversity, National Parks.

Reading List Books:

Text Books:

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*, Vikasb , 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.*

9.Rana, Tejbir Singh, 2015, Diversity of India , R.K. Books, Delhi.

10. https://www.gale.com/ebooks/9781615302024/understanding-india-the-geography-of-india

11. https://www.indianculture.gov.in/ebooks/india-regional-geography

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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: G*eography 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* G*eography of India*, Vikasb , Publishing.

7. Singh Gopal, 1976: *A* G*eography of India*, Atma Ram.

8. Spate O. H. K. and Learmonth A. T. A., 1967: *India and Pakistan: A General and Regional.*

9.Rana, Tejbir Singh, 2015, Diversity of India , R.K. Books, Delhi.

10. https://www.gale.com/ebooks/9781615302024/understanding-india-the-geography-of-india

11. https://www.indianculture.gov.in/ebooks/india-regional-geography

12. https://sarkaribooklet.com/india-atlas-book-pdf-in-hindi/
13. https://ishwarahir.in/atlas-book-pdf/

Reference books.

3. . Hussain M., 1992: G*eography of India*, Tata Mc Graw Hill Education.
4. INDIA A COMPREHENSIVE GEOGRAPHY, D.R. Khullar, Kalyani Publication.

Geography, Methuen.

Websites:
Indian Institute of Surveying & Mapping: http://www.iism.nic.in/
Survey of India Department of Science & Technology: http://www.surveyofindia.gov.in/

Indian National Cartographic Association: https://incaindia.org/
Bhuvan Indian Geo Platform of ISRO: https://bhuvan.nrsc.gov.in/

Course code	:	GEOGE-401			
Course Name	:	Geography of India			
Semester /Year	:	IV			
		L	**T**	**P**	**C**
		4			4

Course Objectives :The objectives of this course are:

1. To provide detail knowledge about physiography, demography and cultural attributes of Indian landscapes, Agriculture, economy, resource distribution.
2. Now there would be conceptual clarity about physical, demographic, social, cultural, agriculture and economic spheres of Indian regions.

Course Outcomes

Upon successful completion of the course a:

Paper code	Paper name	Course outcome
GEOGE-401	Geography of India	CO1- Students will able to provide detail knowledge about physiographic divisions of India. CO2- Students will be able to explain and compare between different regions of India. CO3- They will be able to clarity about physical, demographic, social, cultural, agriculture and economic spheres of Indian regions. CO4-. They will able to prepare maps of physical, demographic,

		social, cultural, agriculture and economic spheres of Indian regions. CO5- They will be able to prepare and explain the plan for the development of various fields of Geography in India. CO6- Now students will be able to analyze the demographic and other attributes of Uttrakhand and India.

CO-PO Mapping

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	3	-	-	3	-	1	-	3	-	1
CO2	3	2	2	-	-	2		1	-	2	-	1
CO3	3	2	3	-	-	2	3	2	-	2	3	2
CO4	3	2	3	-	-	2	3	2	-	2	3	2

3: Highest Correlated, 2: Medium Correlated, 1: Lowest Correlated

Course Contents

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. Economy of Uttarakhand.

Reading List

Text Books:

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.

9.Rana, Tejbir Singh, 2015, Diversity of India , R.K. Books, Delhi.

10. https://www.gale.com/ebooks/9781615302024/understanding-india-the-geography-of-india

11. https://www.indianculture.gov.in/ebooks/india-regional-geography