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 2024

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 are:

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 are:

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

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.

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 are:

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.

		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 are:

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

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.

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 are:

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 are:

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	PO 10	PO 11	PO 12	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 are:

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 are:

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.

5. 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.
6. 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-202	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	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	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

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

Upon successful completion of the course are:

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.

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

Course Outcomes
Upon successful completion of the course are:

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										

1	Major Core	GEODC-301	Climate Change, Hazard and Disaster Management	3			3	30	70	100
Practical										
2	Major Core	GEODL-301	Practical Geography			2	1	30	70	100
		Total		3		2	4	60	140	200
Major Elective		GEODC-302	Geography of India	3			3	30	70	100
Practical										
Major Elective		GEODL-302	Practical Geography			2	1	30	70	100
		Total		3		2	4	60	140	200
Theory										
Vocational Coarse		GEOSC-301	India – Locational Aspects (Map)	2			2	30	70	100
Theory										
Open Elective		GEOGE-301	Tourism Geography	4			4	30	70	100
		Total		6			6	60	140	200

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

4. Examination Scheme:

5.

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

6.

Disaster Management

Course code	:	GEODC-301
Course Name	:	Climate Change, Hazard and Disaster Management

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 are:

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 are:

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 are:

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

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/

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 Fourth 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	L	T	P	C
Course code	: GEODC-401		3			3
Course Name	: Geographical Thought					
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 are:

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 are:

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.

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/

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 are:

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 are:

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

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

Reference books.

3. . Hussain M., 1992: *Geography 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 are:

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.

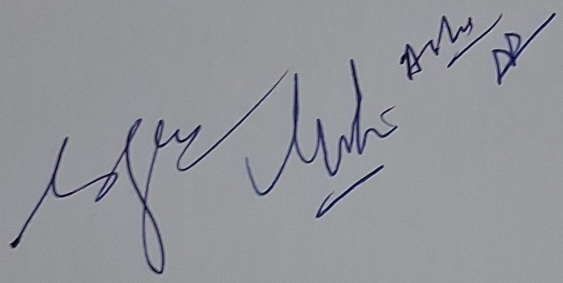
8. Spate O. H. K. and Learmonth A. T. A., 1967: *India and Pakistan: A General and Regional*

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



Programme / Class	B.A.	Year	III	Semester	V
Subject	Geography Major				
Course Code	GEODC-501	Course Title	Biogeography		

Course Outcome- The course will provide a historical background for the field of biogeography and the ecological foundations needed to understand the distribution and abundance of species and their changes over time. The course also provides nature, scope, significance of Soil Geography and its relevance to pedology; factors of soil formation, soil formation process, soil erosion, soil degradation and conservation of soil; physical and chemical properties of soils, classification of soils and soil management.

Credits – 5	Max. Marks : 100	Min. Passing Marks :33

Total No. of Lectures - Tutorials - Practical (in hours per week) : 4-0-0

Unit	Topic	No. of Lectures
I	History of Biogeography, Ecology, Ecosystem, Structure and function of ecosystem, Energy flow in an ecosystem, Ecotone, Food chain, food web and ecological succession, Major Ecosystems, Biome, Classification of biome, Ecological Successions.	10
II	Biodiversity: genetic, species and ecosystem diversity; Biogeography zones of India; Biodiversity patterns and global biodiversity hot Spots. Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions, In-situ and Ex-situ conservation of biodiversity.	10
III	Niche concepts, Biogeography of human infectious disease, Dispersal and Immigration, Speciation and Extinction, Geography of Diversification and Invasion, Assembly and Evolution of Insular Biotas, Ecogeographic Rules	15

	and Diversity Gradients, Conservation Biogeography.	
IV	Factors of Soil Formation: Parent Material, Organic, Climatic, Topographic. Processes of Soil Formation and Soil Development: Physical, Biotic and Chemical. Physical Properties of Soils: Morphology, Texture, Structure, Water, Air, Temperature. Chemical Properties of Soils : pH, Organic Matter ,NPK(Nitrogen, Phosphorous and Potassium) and Other Properties of Soils.	15
V	Genetic Classification of Soils, Characteristics and World Distribution of Soils. Soil Erosion: Concept, Causes and Controlling Factors. Degradation and Conservation of Soils. USLE and RUSLE model.	10

Suggested Readings:

- Lomolino, M.V. et al. 2004. Foundations of Biogeography.
- Brady, N.C and Well, R.R. (2010) The Nature and Properties of Soils, Mc Millan NewYork.
- Agarwal KC, 2001. Environmental Biology, Nidi Publishers Ltd. Bikaner.
- BharuchaErach, 2003. The Biodiversity of India, Mapin Publishing Pvt. Ltd, Ahmedabad – 380013, India.
- Brunner RC, 1989, Hazardous Waste Incineration, McGraw Hill Inc.
- Clark RS, Marine Pollution, Clanderson Press, Oxofrd (TB).
- Cunningham WP, Cooper TH, Gorhani E & Hepworth MT, 2001. Environmental Encyclopaedia, Jaico Publishing House, Mumbai, 1196pgs.
- De AK, Environmental Chemistry, Wiley Eastern Ltd.
- Gleick HP, 1993. Water in Crisis, Pacific Institute for Studies in Development, Environment and Security. Stockholm Environmental Institute, Oxford University Press.
- Hawkins RE, Encyclopedia of Indian Natural History, Bombay Natural History Society, Bombay (R)
- Heywood VH and Watson RT, 1995.Global Biodiversity Assessment.Cambridge University Press.
- Jadhav H and Bhosale VM, 1995. Environmental Protection and Laws.Himalaya Publishing House, Delhi.

Programme / Class	B.A.	**Year**	III	**Semester**	V
Subject	**Geography Minor**				
Course Code	**GEODC-502**	**Course Title**	**Settlement Geography**		
Course Outcome- The objectives of this paper are to introduce the concepts in settlement geography in adequate manner and various types of settlements.					
Credits – 5	**Max. Marks :** 100	**Min. Passing Marks :**33			
Total No. of Lectures - Tutorials - Practical (in hours per week) : 4-0-0					

Unit	Topic	No. of Lectures
I	Concept and Nature, Meaning and Scope of Settlement Geography.	10
II	Determinants of settlement pattern	10
III	Settlements: Types of Rural Settlements; Patterns of Rural Settlements;	10
IV	Classification of Urban Settlements based on Function and Size.	10
V	Trends and Patterns of World Urbanization,Contemporary Issues of population and Urbanization	10

Suggested Reading:

- Singh, R.L., et., al. Readings in Rural Settlement Geography, Varanasi 1972.
- Chisholm, M., Rural Settlements and Landuse, London, 1970.
- Hudson, F.S., A Geography of Settlements, McDonald and Evans., N.D., 1976.
- Wanmali, S., Service Centers in Rural India, B.R. Publication, Delhi, 1983.
- Daniel, P.A. and Hopkinson, M.F. (1989) The Geography of Settlement, Oliver & Boyd, London.
- Johnston R; Gregory D, Pratt G. et al. (2008) The Dictionary of Human Geography, Blackwell Publication.

Programme / Class	B.A.	**Year**	III	**Semester**	V
Subject	Geography				
Course Code	GEOSC-501	**Course Title**	**Basics of Remote Sensing and GIS (Theory & Practical)**		
Course Outcome- The objectives of this course are to introduce the concepts in Geomorphology in adequate manner, many facets of surface relief features and to understand various aspects of their growth and evolution on the Earth.					
Credits – 5	**Max. Marks :** 100		**Min. Passing Marks :**33		
Total No. of Lectures - Tutorials - Practical (in hours per week) : 4-0-0					

Unit	Topic	No. of Lectures
I	Remote Sensing: Definition and Development, Platforms and Types, Components, EMR Interaction with Atmosphere and Earth Surface, Types of RS Satellites, Sensors, Resolution.	10
II	Photogrammetry: Definition and Development, Aerial Photography, Types, Planning for Aerial photographs, Introduction of DIP, Interpretation of Satellite Images, Image Pre-processing, Enhancement, Classification, Accuracy assessment.	10
III	Geographical Information System (GIS), Definition and Components, History, An Overview of Hardware of GIS, Software requirements of GIS, GIS Data Creation and Components of Data Quality, Sources of Errors, Geo-Referencing, Data Types (spatial and Non-spatial), Raster and Vector Data Structure.	15
IV	Global Positioning System (GPS), Principles and Uses; DGPS. Constellation of GPS Satellites, Applications of GPS in Surveys, Mapping and Navigation	15
V	DEM Derivatives, Network Analysis, Buffering, Interpolation Methods, Map Compilation, Land Use/land Cover Mapping, Urban Sprawl Analysis, Urban	10

	Planning, Health Information System	

Suggested Reading:

- Lillesand et al. 2010 Remote Sensing and Image Interpretation, Wiley and Sons. New Delhi.
- Chang K.T. 2014 Introduction to Geographic Information System, McGraw Hill, New Delhi.
- Nag, P. (2008) Introduction to GIS, Concept India, New Delhi.
- Sarkar, A. (2015) Practical geography: A systematic approach. Orient Black Swan Private Ltd., New Delhi
- Singh, R.B. and Murai, S. (1998) Space Informatics for Sustainable Development, Oxford and IBH, New Delhi.
- Bhatta, B. (2010) Analysis of Urban Growth and Sprawl from Remote Sensing,Springer, Berlin Heidelberg.
- Burrough, P.A., and McDonnell, R.A. (2000) Principles of Geographical Information System-Spatial Information System and Geo-statistics. Oxford University Press
- Heywoods, I., Cornelius, S and Carver, S. (2006) An Introduction to Geographical Infromation system. Prentice Hall.
- Jha, M.M. and Singh, R.B. (2008) Land Use: Reflection on Spatial Informatics Agriculture and Development, New Delhi: Concept.

Programme / Class	B.A.	**Year**	III	**Semester**	V
Subject	Geography				
Course Code	GEODL-501	**Course Title**	**Statistical Techniques (Practical)**		
Course Outcome- Statistics is the discipline which helps to understand the dynamics temperature, weather and climate, agriculture and other geographical study with the help of tabulation techniques, data representation. Sampling methods, measure of central tendency, dispersion, and association and correlation techniques helps in research involved in geography.					

Credits – 5	Max. Marks : 100	Min. Passing Marks :33
Total No. of Lectures - Tutorials - Practical (in hours per week) : 3-0-1		

Unit	Topic	No. of Lectures
I	Use of Data in Geography: Geographical Data Tabulation, Significance of Statistical Methods in Geography, Sources of Data, Data Presentation, Scales of Measurement (Nominal, Ordinal, Interval, Ratio).	10
II	Frequency distribution, Histograms, frequency curve and polygon, Cross Tabulation, Cumulative frequency curve and polygon, Measure of Central Tendencies, Measure of Dispersion	15
III	Coefficient of Variation, Z-score, Skewness, Kurtosis, Regression,	15
IV	Sampling: Purposive, Random, Systematic and Stratified. Non-probability Sampling, Probability and Normal Distribution, Poisson Distribution an Binomial Distribution, Lorenz Curve and Gini Coefficient.	10
V	Rank Correlation, Product Moment Correlation, Simple Regression and Residuals from regression, Measurement of Spatial Patterns of Distribution— Nearest Neighborhood Analysis, Rank Size Rule. Location Quotient and its importance.	10

Suggested Reading:

- Berry B. J. L. and Marble D. F. (eds.): *Spatial Analysis – A Reader in Geography.*
- Mahmood A., 1977: *Statistical Methods in Geographical Studies*, Concept.
- Pal S. K., 1998: *Statistics for Geoscientists*, Tata McGraw Hill, New Delhi.
- Silk J., 1979: *Statistical Concepts in Geography*, Allen and Unwin, London.
- Spiegel M. R.: Statistics, *Schaum's Outline Series.*
- Yeates M., 1974: *An Introduction to Quantitative Analysis in Human Geography*, McGraw Hill, New York.

Programme / Class	B.A.	**Year**	III	**Semester**	V
Subject	Geography				
Course Code		**Course Title**	**Research Methodology**		

Course Outcome- On completion of this course students will be able to understand the general principles and methods involved in doing social research. This course provides philosophical underpinnings of the social research and familiarizes the students with methodological tools and statistical techniques, explaining quantitative and qualitative methods, which will help them to undertake empirical research independently.

Credits – 4	**Max. Marks :** 100	**Min. Passing Marks :**33

Total No. of Lectures - Tutorials - Practical (in hours per week) : 3-0-0

Unit	Topic	No. of Lectures
I	Definition, Types and Importance Geographical Research Problems of objectivity Relationship Between Theory and Research	7
II	Hypotheses: Meaning, Importance Types and Formulation Sampling: Meaning, Characteristics and Types Research Design, Meaning and Types.	7
III	Meaning and Methods of Data Collection Primary Data**:** Observation, Questionnaire and Interview Secondary Data	7
IV	Measures of Central Tendency: Mean Median and Mode. Research Reports – Structure and Components of Research Report. Characteristics of Good Research Report.	7

V	Qualitative and Quantitative Research: Qualitative research – Quantitative research Concept of measurement, causality, generalization, replication. Merging the two approaches.	7
VI	Sampling: Concepts of Statistical Population, Sample, Sampling Frame, Sampling Error, Sample Size, Non-Response. Characteristics of a good sample. Probability Sample – Simple Random Sample, Systematic Sample, Stratified Random Sample & Multi-stage sampling. Determining size of the sample – Practical considerations in sampling and sample size.	10

Suggested Readings:

- Ahuja, Ram (2001), Research Methods, Delhi: Rawat Publications.
- Gupta, S.P. (2002). Statistical Methods, New Delhi:Sultan Chand and Sons Publication.
- Bailey, Kenneth D. (1982), Method of Social Research, New York: The Free Press, Second Edition.
- Blalock, Hubert M. (1979), Social Statistics. New York:
- Tata Mc-Graw-Hill. Boss, P.K. (1995), Research Methodology, New Delhi, ICSSR.
- Champion, Dean. J. (1981), Basic Statistics for Social Research New Delhi: Macmillan Publishing New York.
- Goode, W.J. and P.K. Hatt, (1952), Methods in Social Research, New York: McGraw International Students Edition.
- Moser, S.C. and G. Kalton (1971), Survey Methods in Social Investigation, London:

Heinmann.Seltiz, Claire et al (1959). Research Methods in Social Relation, New

Course code : GEODE-501				
Course Name : Agriculture Geography				
Semester : V				
	L	T	P	C
	03			03

The objectives of this course are:

1. To aware them about the knowledge of agriculture region in the world.
2. To give the knowledge about alarming condition of agriculture in the world.
3. To develop the skill in student regarding use of various renounced agriculture models.

Course Outcome

Paper code	Paper name	Course outcome
GEODE-501	Agriculture Geography	CO1- Students will recall and find the knowledge about definition, scope and significance of agriculture geography. CO2- Students will be able to identify world agriculture region. CO3- They will be able to examine the problems and limitation of different types of agriculture. CO4- They will be able to find and ask questions regarding slow progress of agriculture in a particular region of the world. CO5-. They will be able to evaluate the progress of green revolution and white revolution in India. CO6- They will be able to prepare an assignment on programs and policies introduced by India government in the field of agriculture.

CO-PO Mapping

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

Course Contents

UNIT – I

Nature, Scope, significance and development of Agricultural geography, Origin and Dispersal of Agriculture – major agriculture hearths, Recent trends in Agriculture.

UNIT – II

Determinants of agriculture – Physical, economic, Political, Technological, Socio – cultural, Land reforms, cropping Pattern, Cropping intensity, diversification and specialization, efficiency and Productivity, crop combination regions

UNIT – III

Theories of agriculture location: Von Thunen's Model and concept of agriculture region, Whittlesey's classification of agriculture regions, Agricultural typology Mix Cropping, Crop – rotation and eco farming.

UNIT – IV

Agriculture in India: Land use and shifting cropping Pattern, New trends in India Agriculture – Green revolution, White revolution, Problems of India Agriculture, Agriculture Policy in India, Food Security.

Books Recommended:

Text Books:

1. Symons, L. :Agricultural Geography, G. Bells, London, 1967
2. Grigg, D. :An introduction to Agricultural Geography, Hutchinson Publication, London
3. Gigg. D.B. :The Agricultural System of the World, Cambridge University Press, New York, 1974
4. Mannion, A.M. :Agriculture and Environment Change, John Wile, London, 1995
5. Morgan, W.B. :Agriculture in the Third World – A Spatial Analysis, West Press,
6. Singh, B.B. :Krishi Bhoogol, GyanodayPrakashan, Gorakhpur
7. Kumar, Pramila evm Sharma, S.K. :Krishi Bhoogol, Hindi Granth Academy, Bhopal
8. and Food – Global Trends and Future Prospects, Routledgo, London, 1997
9. https://www.amazon.in/Agricultural-Geography-Leslie-Symons-ebook/dp/B08QYKXJRT
10. https://books.google.co.in/books/about/Agricultural_Geography.html?id=zBo_1ZJAQDAC
11. https://books.google.co.in/books/about/Agricultural_Geography.html?id=EYI_AAAAYAAJ&redir_esc=y

Reference Books:

1. Tiwari, R.C. and Singh, B.N. :Krishi Bhoogol, PrayagPustak Bhawan, Allahabad
2. Agriculture Geography, Majid Husain, Rawat Publication, Jaipur.

Course code : GEODE-502				
Course Name : Geography of Tourism & Recreation				
Semester : V				
	L	T	P	C
	03			03

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 Outcome

Paper code	Paper name	Course outcome
GEODE-502	Geography of Tourism & Recreation	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 national and international tourist places of the world. CO4-. They will be able to differences between Himalayan tourism and other physiographic region's tourism. CO5-. They will be able to evaluate the development of tourism in deferent region of the world. CO6-.They will be able to prepare project on tourism and economy development, green tourism, eco tourism, and sustainable tourism etc.

CO-PO Mapping

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

Course Contents

UNIT – I

Tourism and Recreation – meaning and Definitions, Development of Geography of Tourism and Recreation, Approaches to the study and models of Tourism, Present Tourism Trends, Its relation with other branches of Geography

UNIT – II

Tourism Types: Cultural, Eco- tourism- coastal and adventure tourism, National and International tourism, Globalization and Tourism, Tourism as an industry structural components and characteristics, International tourism and Political Fallouts

UNIT – III

Development of Tourism in Himalayas: Potentials and Promotion of Tourism – Pilgrimage Tourism as aprocess of Development and Change in Hill region : Futuristic Tourism Himalayas. Impact of Tourism – Environmental, Economic and Socio- Cultural, Case Study of Mussorie and Nainital

UNIT – IV

Planning of Tourism – conflicting issues of Development, Concept of Green Tourism, Eco Tourism Sustainable tourism: Community participation: Role of Foreign capital and impact of Globalization on Tourism, Contemporary issues

Books Recommended:

Text Books:

1. Hall, C.M. and Page, S.J. :The Geography of Tourism and Recreation, Environment, Place andSpace, Routledge, London, 1999
2. Shaw, G. and Williams, A.M. :Critical issues in Tourism : A Geographical Perspective Blackwell,Oxford, 1994
3. Kaul, R.K. :Dynamics of Tourism and Recreation, Inter India, New Delhi, 1985
4. Pearce, D. :Tourism Today – A Geographical Analysis, Longman Scientific and Technical, New York,1987
5. Cris, Ryan :Recreational Tourism, A Social Science Perspective, Routledge, London
6. Hall, C.M. and Page, S.J. :Tourism in South and South East Asia, issues and Cases, Butterworth, Heinemann, Oxford, 2001
8. Garg, N.K. :Tourism and Economic Development, Avishkar, Jaipur, 1996
9. Bhardwaj, D.S. and Chaudhary, M. :Contemporary Issues in Tourism, Himalaya, Mumbai, 1997

11 https://books.google.co.in/books/about/The_Geography_of_Tourism_and_Recreation.html?id=Dl9JhIZ-i4MC&redir_esc=y

12. https://www.kobo.com/ww/en/ebook/the-geography-of-tourism-and-recreation-environment-place-and-space-4th-edition

12. https://www.academia.edu/265485/The_Geography_of_Tourism_and_Recreation_Environment_Place_and_Space_CM_Hall_SJ_Page_Abingdon_Routledge_2006_408 pp_25_99_Pbk_ISBN_0_

Reference Books:

1. Sinha, P.C. :International Encyclopedia of Tourism Management, Vols. 1-12, Anmol, New Delhi
2. Bhatia, A.K. :Tourism Development Principles and Practices, Sterling, Bangalore,

B.A./B.Sc. Geography Sixth Semester

Programme / Class	B.A.	**Year**	III	**Semester**	VI
Subject	**Geography**				
Course Code	**GEODC-601 Major**	**Course Title**	**Research Methodology**		

Course Outcome- On completion of this course students will be able to understand the general principles and methods involved in doing social research. This course provides philosophical underpinnings of the social research and familiarizes the students with methodological tools and statistical techniques, explaining quantitative and qualitative methods, which will help them to undertake empirical research independently.

Credits – 4	**Max. Marks :** 100	**Min. Passing Marks :**33

Total No. of Lectures - Tutorials - Practical (in hours per week) : 3-0-0

Unit	Topic	No. of Lectures
I	Definition, Types and Importance Geographical Research Problems of objectivity Relationship Between Theory and Research	7
II	Hypotheses: Meaning, Importance Types and Formulation Sampling: Meaning, Characteristics and Types Research Design, Meaning and Types.	7
III	Meaning and Methods of Data Collection Primary Data: Observation, Questionnaire and Interview Secondary Data	7
IV	Measures of Central Tendency: Mean Median and Mode.	7

	Research Reports – Structure and Components of Research Report. Characteristics of Good Research Report.	
V	Qualitative and Quantitative Research: Qualitative research – Quantitative research Concept of measurement, causality, generalization, replication. Merging the two approaches.	7
VI	Sampling: Concepts of Statistical Population, Sample, Sampling Frame, Sampling Error, Sample Size, Non-Response. Characteristics of a good sample. Probability Sample – Simple Random Sample, Systematic Sample, Stratified Random Sample & Multi-stage sampling. Determining size of the sample – Practical considerations in sampling and sample size.	10

Suggested Readings:

- Ahuja, Ram (2001), Research Methods, Delhi: Rawat Publications.
- Gupta, S.P. (2002). Statistical Methods, New Delhi:Sultan Chand and Sons Publication.
- Bailey, Kenneth D. (1982), Method of Social Research, New York: The Free Press, Second Edition.
- Blalock, Hubert M. (1979), Social Statistics. New York:
- Tata Mc-Graw-Hill. Boss, P.K. (1995), Research Methodology, New Delhi, ICSSR.
- Champion, Dean. J. (1981), Basic Statistics for Social Research New Delhi: Macmillan Publishing New York.
- Goode, W.J. and P.K. Hatt, (1952), Methods in Social Research, New York: McGraw International Students Edition.
- Moser, S.C. and G. Kalton (1971), Survey Methods in Social Investigation, London:

- Heinmann.Seltiz, Claire et al (1959). Research Methods in Social Relation, New York:Henry Holt and Co. Srinivas, M.N. and A.M. Shah (1979). Fieldworker and The Field, New Delhi: Oxford University Press.
- Thakur, Devender (2003), Research Methodology in Social Science, New Delhi: Deep and Deep Publications Pvt. Ltd.
- Young, P.V. (1988), Scientific Social Surveys and Research, New Delhi Prentice Hall.

Programme / Class	B.A.	**Year**	III	**Semester**	VI
Subject	**Geography Minor**				
Course Code	**GEODC-602**	**Course Title**	**Regional and Urban Planning**		

Course Outcome- In the competence of Geography, regions have their own self-motivated segment where it demands a separate bird eye-view to comprehend, entail and plan according to their origin, present significance, and future scope to the respective region. So, it becomes more descriptive, analytical and planning zone for the student.

Credits – 5	**Max. Marks:** 100	**Min. Passing Marks :**33

Total No. of Lectures - Tutorials - Practical (in hours per week): 4-0-0

Unit	Topic	No. of Lectures
I	Region, Development and Planning; Definitions concepts and Types	10
II	Methods of delineation of regions: flow analysis, gravitational analysis; Weighted analysis method.	15
III	Regional devolvement: Concepts and indicators; Regional Planning: Concepts and purpose; Process and Factors of Regional Development	10
IV	Levels of planning: local, regional and national	10

V	Planning in India: Five year plans – goals and achievements, Regional imbalances and inequalities in India;	10

Suggested Reading:

- Introduction to Development and Regional Planning: With Special Reference to India, 2001, Jayasri Ray Chaudhuri
- Planning and regional development in India, Jagannath Mishra, ChakradharSinha – 1985
- India's development agenda: issues, challenges and policies, B. K. Prasad – 2005
- Regional Development And Planning In India selected Essays (2009) V. Nath, S.K. Aggarwal (Edited), Concept Publishing Company
- Regional Development and planning (1976) Paul A. Compton, MartonPecsi, AkademiaiKiado Publisher
- Regional planning in India 1983) Mahesh Chand and Vinay Kumar Puri
- Regional development: problems and policy measures, Abdul Aziz, Sudhir Krishna
- Decentralised planning and Panchayati Raj institutions, Sweta Mishra, Chaitali Pal – 2000

Programme / Class	B.A.	**Year**	III	**Semester**	VI
Subject	Geography				
Course Code	**GEODL-601**	**Course Title**	**Remote Sensing and GIS (Practical)**		
Course Outcome- The objectives of this course are to introduce the concepts in Geomorphology in adequate manner, many facets of surface relief features and to understand various aspects of their growth and evolution on the Earth.					
Credits – 5	**Max. Marks :** 100		**Min. Passing Marks :**33		
Total No. of Lectures - Tutorials - Practical (in hours per week) : 3-0-1					

Unit	**Topic**	**No. of Lectures**

I	Overview of image processing & GIS Packages (Including open source Software's). – ARC GIS,QGIS	15
II	Creation of Shape File in GIS Software's. Coordinate system and projections in GIS Software's. GIS Data Structures: Types (spatial and non-spatial), Raster and Vector Data Structure.	10
III	Geo-Referencing of Maps. Creation of Point, Line and Polygon Files and features. Preparation of Maps with Legend, Scale, North Arrow etc and Export of Map in various Formats.	15
IV	Downloading of Remote sensing Images from various online platforms (like Bhuvan, USGS, ASF, Copernicus etc). Land use Classification (Supervised and Un-supervised) using downloaded images and GIS Packages.	10
V	Interpretation of aerial photograph, Interpretation of satellite images, Stereoscope use, Change detection analysis, image classification.	10

Suggested Reading:

- Lillesand et al. 2010 Remote Sensing and Image Interpretation, Wiley and Sons. New Delhi.
- Chang K.T. 2014 Introduction to Geographic Information System, McGraw Hill, New Delhi.
- Nag, P. (2008) Introduction to GIS, Concept India, New Delhi.
- Sarkar, A. (2015) Practical geography: A systematic approach. Orient Black Swan Private Ltd., New Delhi
- Singh, R.B. and Murai, S. (1998) Space Informatics for Sustainable Development, Oxford and IBH, New Delhi.
- Bhatta, B. (2010) Analysis of Urban Growth and Sprawl from Remote Sensing,Springer, Berlin Heidelberg.
- Burrough, P.A., and McDonnell, R.A. (2000) Principles of Geographical Information System-Spatial Information System and Geo-statistics. Oxford University Press
- Heywoods, I., Cornelius, S and Carver, S. (2006) An Introduction to Geographical Information system. Prentice Hall.
- Jha, M.M. and Singh, R.B. (2008) Land Use: Reflection on Spatial Informatics Agriculture and Development, New Delhi: Concept.

Programme / Class	B.A.	**Year**	III	**Semester**	VI
Subject	Geography				
Course Code		**Course Title**	**Field Visit, Survey and Project**		
Course Outcome- By the End of this Course Students Should be Able to: 1. Understand and use specific Human and Social Sciences knowledge; 2. Know and apply specific Human and Social Sciences skills; 3. Understand, adopt and apply the values related to Human and Social Sciences; 4. Foster empathy, fairness and tolerance.					
Credits – 5	**Max. Marks :** 100		**Min. Passing Marks :**33		
Total No. of Lectures - Tutorials - Practical (in hours per week) : 0-0-0					

Entrepreneurship Development and Startup Management

Programme/Class: Compulsory	Year: Third	Semester: Six
Subject :Entrepreneurship Development and Startup Management		
Course Code: A27060IT	Course Title: Entrepreneurship Development and Startup Management	

Course objectives:

1. To make people learn compliance with law.
2. To develop and fortify entrepreneurial quality, i.e., motivation or need for achievement.
3. To develop small and medium scale enterprises in order to generate employment and widen the scope of industrial ownership.
4. To industrialize rural and backward sections of the society.
5. To understand the merits and demerits of becoming an entrepreneur.

Credits: 4	Compulsory
Max. Marks: 100	Min. Passing Marks:40

Total No. of Lectures-Practical (in hours per week): L-T-P: 6-0-0 or 3-1-0 Etc.

Unit	Topics	No. of Lectures
I	Business: Concept, Meaning, Features, Stages of development of business and importance of business. Classification of Business Activities. Meaning, Characteristics.	7
II	Importance and Objectives of Business Organization, Evolution of Business Organisation. Difference between Industry and Commerce and Business and Profession, Modern Business and their Characteristics.	8
III	Promotion of Business: Considerations in Establishing New Business. Qualities of a Successful Businessman. Forms of Business Organisation: Sole Proprietorship	7
IV	Partnership, Joint Stock Companies & Co-operatives and their Characteristics, relative merits and demerits, Difference between Private and Public Company, Concept of One Person Company.	8
V	Plant Location: Concept, Meaning, Importance, Factors Affecting Plant Location. Alfred Weber's and Sargent Florence's Theories of Location.	7
VI	Plant Layout –: Meaning, Objectives, Importance, Types and Principles of Layout. Factors Affecting Layout. Size of Business	8

Entrepreneurship Development and Startup Management

Programme/Class: Compulsory	Year: Third	Semester: Six
Subject :Entrepreneurship Development and Startup Management		
Course Code: A27060IT	Course Title: Entrepreneurship Development and Startup Management	

Course objectives:

1. To make people learn compliance with law.
2. To develop and fortify entrepreneurial quality, i.e., motivation or need for achievement.
3. To develop small and medium scale enterprises in order to generate employment and widen the scope of industrial ownership.
4. To industrialize rural and backward sections of the society.
5. To understand the merits and demerits of becoming an entrepreneur.

Credits: 4	Compulsory
Max. Marks: 100	Min. Passing Marks:40

Total No. of Lectures-Practical (in hours per week): L-T-P: 6-0-0 or 3-1-0 Etc.

Unit	Topics	No. of Lectures
I	Business: Concept, Meaning, Features, Stages of development of business and importance of business. Classification of Business Activities. Meaning, Characteristics.	7
II	Importance and Objectives of Business Organization, Evolution of Business Organisation. Difference between Industry and Commerce and Business and Profession, Modern Business and their Characteristics.	8
III	Promotion of Business: Considerations in Establishing New Business. Qualities of a Successful Businessman. Forms of Business Organisation: Sole Proprietorship	7
IV	Partnership, Joint Stock Companies & Co-operatives and their Characteristics, relative merits and demerits, Difference between Private and Public Company, Concept of One Person Company.	8
V	Plant Location: Concept, Meaning, Importance, Factors Affecting Plant Location. Alfred Weber's and Sargent Florence's Theories of Location.	7
VI	Plant Layout –: Meaning, Objectives, Importance, Types and Principles of Layout. Factors Affecting Layout. Size of Business	8

	Unit–: Criteria for Measuring the Size and Factors Affecting the Size. Optimum Size and factors determining the Optimum Size.	
VII	Business Combination: Meaning, Characteristics, Objectives, Causes, Forms and Kinds of Business	7
VIII	Combination. Rationalisation: Meaning, Characteristics, Objectives, Principles, Merits and demerits, Difference between Rationalisationand Nationalisation.	8

Suggested Readings:

1. Gupta, C.B., "Business Organisation", Mayur Publiction, (2014).
2. Singh, B.P., Chhabra, T.N., "An Introduction to Business Organisation& Management", Kitab Mahal, (2014).
3. Sherlekar, S.A. &Sherlekar, V.S, "Modern Business Organization & Management Systems Approach Mumbai", Himalaya Publishing House, (2000).
4. Bhusan Y. K., "Business Organization", Sultan Chand & Sons.
5. Prakash, Jagdish, "Business Organistaton and Management", Kitab Mahal Publishers (Hindi and English)

Note: Latest edition of the text books should be used.

Course Learning Outcome:

After completing this course a student will have:

- Ability to understand the concept of Business Organisation along with the basic laws and norms of Business Organisation.
- Ability to understand the terminologies associated with the field of Business Organisation along with their relevance.
- Ability to identify the appropriate types and functioning of Business Organisation for solving different problems.
- Ability to apply basic Business Organisation principles to solve business and industry related problems.
- Ability to understand the concept of Sole Proprietorship, Partnership and Joint Stock Company etc.