



Nehru Gram Bharati (Deemed to be University)
Prayagraj, Uttar Pradesh , INDIA

Syllabus

[As per NEP-2020 Regulations]

Bachelor of Arts (Honours)/(Honours with Research)
in
Geography

[Department of Geography]

[Effective From 2023-24 Onwards]

Board of Studies

Dated: 03-06-2023

1	Dr. Sanjay Kumar Bharati ,	HoD & Assistant Professor, Department of Geography, NGB(DU), Prayagraj
2	Dr. Meeta Ratawa Tiwari	Assistant Professor, Department of Geography, NGB(DU), Prayagraj
3	Prof. H. N. Misra (Subject Expert)	Professor & Ex-Head (Retd.), Department of Geography, University of Allahabad, Prayagraj
4	Prof. Anupam Pandey (Subject Expert)	Professor & Head, Department of Geography, University of Allahabad, Prayagraj
5	Dr. B.M. Tripathi	Associate Professor, Department of Ancient History, Culture and Archaeology, NGB(DU), Prayagraj
6	Dr. Prabuddha Mishra	Associate Professor, Department of Philosophy & Yoga, NGB(DU), Prayagraj
7	Dr. Ramesh Chandra Mishra	Associate Professor, Department of Political Science, NGB(DU), Prayagraj
8	Dr. D.N. Pathak	Chief Proctor, Associate Professor & Head, Department of Sanskrit, NGB(DU), Prayagraj

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File No. Geog/BOS/2023/8

Date: 03/06/23

Minutes of Board of Studies Meeting

The meeting of the Board of Studies of the department of Geography was held on 03/06/2023 (Saturday), Time: 11:30 AM, at Shashi Campus, Jhutti Tali, Prayagraj, U.P. The chairperson of the board of Studies Dr. Sanjay Kumar Bharati introduced all the members of the Board of Studies. Thereafter following agenda was taken up for discussion and subsequently taken up for adaptation as under-

1. Confirm of previous meeting held on 24.03.2023
2. To consider and approved of Syllabi prepared for the 4 years UG programme (Under the NEP-2020) for the department of Geography in the university from the forthcoming session 2023-24.
3. Approved, external expert panel for practical exam of U.G. and P.G. for from the forthcoming session 2023-24.
4. Approved, external expert for paper setting of U.G. and P.G. for from the forthcoming session 2023-24.

Members of BOS.

1. Dr. Meeta Ratana Tiwary, Assistant Prof. Department of Geography, NGB (DU), Prayagraj

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2. Prof. H.M. Misra, Professor & Ex-Head,
Department of Geography, ~~Univ. of Allahabad~~, Prayagraj

3. Prof. Anupam Pandey, Professor & Head, Department of Geography, University of Allahabad, Prayagraj

4. Dr. B.M. Tripathi, Associate Professor & Head, Department of Ancient History, MGB (DU), Prayagraj

5. Dr. Prabuddha Mishra, Associate Professor, Department of Geography, MGB (DU), Prayagraj

6. Dr. R.C. Mishra, Associate Professor & Head, Department of Pol. Science, MGB (DU), Prayagraj

7. Dr. D.M. Pathak, Chief Proctor, Associate Professor & Head, Department of Sanskrit, MGB (DU), Prayagraj

03/06/2023

03/06/2023

Chairperson

Dr. S.K. Bharati

Assistant Professor & Head

Department of Geography

Dr. S.K. Bharati

Introduction of the Programme:

[a] Introduction:

The NEP-2020 offers an opportunity to effect a paradigm shift from a teacher-centric to a student-centric higher education system in India. It is based on Outcome Based Education, where the Graduate Attributes are first kept in mind to reverse-design the Programs, Courses and Supplementary activities to attain the graduate attributes and learning outcomes. The learning outcomes-based curriculum framework for a degree in B.A. (Honours/Honours with Research) in Geography is intended to provide a comprehensive foundation to the subject and to help students develop the ability to successfully continue with further studies and research in the subject while they are equipped with required skills at various stages. The framework is designed to equip students with valuable cognitive abilities and skills so that they are successful in meeting diverse needs of professional careers in a developing and knowledge-based society. The curriculum framework takes into account the need to maintain globally competitive standards of achievement in terms of the knowledge and skills, as well as to develop spirit of enquiry, problem solving skills and human and professional values which foster rational and critical thinking in students.

[b] Graduate Attributes:

Type of learning outcomes	The Learning Outcomes Descriptors
Learning outcomes that are specific to disciplinary/interdisciplinary areas of learning	Disciplinary/ interdisciplinary Knowledge & Skills
Generic learning outcomes	<i>Critical Thinking & problem-solving Capacity</i>
	<i>Creativity</i>
	<i>Communication Skills:</i> The graduates should be able to demonstrate the skills that enable them to: <ul style="list-style-type: none">• listen carefully, read texts and research papers analytically, and present complex information in a clear and concise manner to different groups/audiences,• express thoughts and ideas effectively in writing and orally and communicate with others using appropriate media,• confidently share views and express herself/himself,• construct logical arguments using correct technical language related to a field of learning, work/vocation, or an area of professional practice,• convey ideas, thoughts, and arguments using language that is respectful and sensitive to gender and other minority groups.
	<i>Analytical reasoning/thinking:</i> The graduates should be able to demonstrate the capability to: <ul style="list-style-type: none">• evaluate the reliability and relevance of evidence;• identify logical flaws in the arguments of others;• analyze and synthesize data from a variety of sources;• draw valid conclusions and support them with evidence and examples, and addressing opposing viewpoints.

Research-related skills: The graduates should be able to demonstrate:

- a keen sense of observation, inquiry, and capability for asking relevant/ appropriate questions,
- the ability to problematize, synthesize and articulate issues and design research proposals,
- the ability to define problems, formulate appropriate and relevant research questions, formulate hypotheses, test hypotheses using quantitative and qualitative data, establish hypotheses, make inferences based on the analysis and interpretation of data, and predict cause-and-effect relationships,
- the capacity to develop appropriate methodology and tools of data collection,
- the appropriate use of statistical and other analytical tools and techniques,
- the ability to plan, execute and report the results of an experiment or investigation,
- the ability to acquire the understanding of basic research ethics and skills in practicing/doing ethics in the field/ in personal research work, regardless of the funding authority or field of study.

Coordinating/collaborating with others: The graduates should be able to demonstrate the ability to:

- work effectively and respectfully with diverse teams,
- facilitate cooperative or coordinated effort on the part of a group,
- act together as a group or a team in the interests of a common cause and work efficiently as a member of a team.

Leadership readiness/qualities: The graduates should be able to demonstrate the capability for:

- mapping out the tasks of a team or an organization and setting direction.
- formulating an inspiring vision and building a team that can help achieve the vision, motivating and inspiring team members to engage with that vision.
- using management skills to guide people to the right destination.

'Learning how to learn' skills: The graduates should be able to demonstrate the ability to:

- acquire new knowledge and skills, including 'learning how to learn' skills, that are necessary for pursuing learning activities throughout life, through self-paced and self-directed learning aimed at personal development, meeting economic, social, and cultural objectives, and adapting to changing trades and demands of the workplace, including adapting to the changes in work processes in the context of the fourth industrial revolution, through knowledge/ skill development/reskilling,

- work independently, identify appropriate resources required for further learning,
- acquire organizational skills and time management to set self-defined goals and targets with timelines.
- inculcate a healthy attitude to be a lifelong learner,

Digital and technological skills: The graduates should be able to demonstrate the capability to:

- use ICT in a variety of learning and work situations,
- access, evaluate, and use a variety of relevant information sources,
- use appropriate software for analysis of data.

• **National & International Perspective considering the current perspective of a Global Village.**

Value inculcation: The graduates should be able to demonstrate the acquisition of knowledge and attitude that are required to:

- embrace and practice constitutional, humanistic, ethical, and moral values in life, including universal human values of truth, righteous conduct, peace, love, nonviolence, scientific temper, citizenship values,
- practice responsible global citizenship required for responding to contemporary

<p>global challenges, enabling learners to become aware of and understand global issues and to become active promoters of more peaceful, tolerant, inclusive, secure, and sustainable societies,</p> <ul style="list-style-type: none"> • formulate a position/argument about an ethical issue from multiple perspectives • identify ethical issues related to work, and follow ethical practices, including avoiding unethical behaviour such as fabrication, falsification or misrepresentation of data, or committing plagiarism, and adhering to intellectual property rights, • recognize environmental and sustainability issues, and participate in actions to promote sustainable development.
<p>Autonomy, responsibility, and accountability: The graduates should be able to demonstrate the ability to:</p> <ul style="list-style-type: none"> • apply knowledge, understanding, and/or skills with an appropriate degree of independence relevant to the level of the qualification, • work independently, identify appropriate resources required for a project, and manage a project through to completion,
<p>Environmental awareness and action: The graduates should be able to demonstrate the acquisition of and ability to apply the knowledge, skills, attitudes, and values required to take appropriate actions for:</p> <ul style="list-style-type: none"> • mitigating the effects of environmental degradation, climate change, and pollution, effective waste management, conservation of biological diversity, management of biological resources and biodiversity, forest and wildlife conservation, and sustainable development and living.
<p>Community engagement and service: The graduates should be able to demonstrate the capability to participate in community-engaged services/ activities for promoting the well-being of society.</p>
<p>Empathy: The graduates should be able to demonstrate the ability to identify with or understand the perspective, experiences, or points of view of another individual or group, and to identify and understand other people's emotions.</p>

[c] Flexibility:

The programmes are flexible enough to allow liberty to students in designing them according to their requirements. The Learner is given freedom of choice in selecting disciplines. Students may select his/her own stream. He/She may select three major disciplines from his/her own stream or two major disciplines from his own stream and one major discipline from any other stream. Along with major disciplines, a student can select minor disciplines from other streams, languages, generic electives, ability enhancement courses, Vocational/Skill Enhancement Courses (SEC) and Value added Courses including Extra Curricular activities.

Multiple Entry & Exit Options:

EXIT OPTIONS	Credits Required
Certificate upon the Successful Completion of the First Year (Two Semesters) of the multidisciplinary Four-year Undergraduate Programme. [NSQF Level 5]	44
Diploma upon the Successful Completion of the Second Year (Four Semesters) of the multidisciplinary Four-year Undergraduate Programme. [NSQF Level 6]	88
Basic Bachelor Degree at the Successful Completion of the Third Year (Six Semesters) of the multidisciplinary Four-year Undergraduate Programme.	136
Bachelor Degree with Honours/Honours with Research in a Discipline at the Successful Completion of the Fourth Year (Eight Semesters) of the multidisciplinary Four-year Undergraduate Programme.	180

Programme Educational Objectives (PEOs):

- PEO1. To provide deep understanding of the principles of geographic ideas.
- PEO2. To provide geographical knowledge as applicable in various spheres of life.
- PEO3. To foster awareness about economic, social, political, ecological, and spatial interdependences in the physical and human environment.
- PEO4. To enable students acquire the knowledge, values, attitudes, commitment and skills needed to understand the interrelationship between physical and human environment.
- PEO5. To provide students with opportunities to acquire the necessary applied skills that will enable them pursue career in varied fields.
- PEO6. To create diverse educational experiences fostering a deep understanding of sustainability at all the levels.

Programme Outcomes (POs):

- PO1. The learning outcome is to prepare the students of B.A./B.Sc. Honors degree in Geography, to understand the development of the subject and delve around issues suited to the needs of the contemporary world. It covers a wide range of papers covering various themes and also maintains uniformity of structure across universities in the country. Geography being interdisciplinary in nature integrates learning derived from all basic and applied sciences/social sciences.
- PO2. Students of the B.A./B.Sc. Honors degree in Geography will learn to use geographic understanding of various sub fields such as physiography, resources, global economic systems, socio- cultural aspects, rural and urban milieu, environmental and disaster studies and mapping methods.
- PO3. They are trained to read and interpret maps, prepare transect charts and thematic atlas.
- PO4. They are also able to read and analyse weather phenomenon through weather maps and charts.
- PO5. Students will acquire scientific methodology of data handling, hypothesis generation, testing and analysis.
- PO6. After the completion of the course, students will also gain knowledge of various technological applications through study of Remote Sensing and Geographic Information Science.
- PO7. The curriculum also provides an opportunity to digitally produce maps and modelling applications.
- PO8. The students also learn hand on skills to prepare building disaster plans, community disaster preparedness and also awareness creation.

- PO9. They will also develop an understanding of global issues from economic, social, environmental and political perspectives, which has relevance in further studies all across the globe.
- PO10. They also develop effective communication skills, team work, travel exposure and zeal of investigation and exploration.
- PO11. The learners can greatly contribute to the subject through teaching, research and field oriented studies.
- PO12. The students will also be able to pursue a career in spatial planning, sustainable practices, environmental and resource management.
- PO13. The geography graduates will be well informed citizens who can play immense role in the civil society too. They will be able to pursue wide range of careers as planners, administrators, academicians, and managers.

Programme Specific Outcomes (PSOs):

Department of Geography
B.A.(Honours/Honours with Research) in Geography
SYLLABUS STRUCTURE OVER-All (Based on NEP – 2020)

BA (Honours/Honours with Research) in Geography											
Year	Semester	Nomenclature of the Courses/Title	Com/Ele.	Credit	Credit			Teaching Hours			
					Distribution			L	T	P	
					L	T	P				
First Year	I	Physical Geography-Earth System (Major-I)	Compulsory	2	2	0	0	30	0	0	
		Analysis of Geographical Data and Graphical Representation	Compulsory	2	0	0	2	0	0	60	
		Introduction to IKS (Major-I)	Compulsory	3	2	1	0	30	15	0	
		Minor	Pool Elective	2	2	0	0	30	0	0	
		SEC	Pool Elective	3	1	0	2	15	0	60	
		VAC	Pool Elective	2	2	0	0	30	0	0	
		Other 02 Major	Pool Elective	8	6	2	0	90	30	0	
					22				0	0	0
	II	Physical Geography- Atmospheric System (Major-I)	Compulsory	3	3	0	0	45	0	0	
		Field Work-Surveying and Mapping	Compulsory	2	0	0	2	0	0	60	
		Minor	Pool Elective	2	2	0	0	30	0	0	
		SEC	Pool Elective	3	1	0	2	15	0	60	
		VAC	Pool Elective	2	1	1	0	15	15	0	
		Other 02 Major	Pool Elective	10	8	2	0	120	30	0	
				22				0	0	0	
Exit Option : Certificate in Field of Learning/discipline								0	0	0	
Second Year	III	Human Geography (Major-I)	Compulsory	2	2	0	0	30	0	0	
		Map Projection & Weather Map	Compulsory	2	0	0	2	0	0	60	
		Applied IKS-I: Geography (Major-I)	Compulsory	3	2	1	0	30	15	0	
		Minor Paper for other discipline Natural Hazard Management	Pool Elective	2	2	0	0	30	0	0	
		SEC	Pool Elective	3	1	0	2	15	0	60	
		VAC	Pool Elective	2	1	1	0	15	15	0	
		Other 02 Major	Pool Elective	8	6	2	0	90	30	0	
					22				0	0	0

	IV	Regional Geography of World (Major-I)	Compulsory	3	3	0	0	45	0	0	
		Elementary Statistics	Compulsory	2	0	0	2	0	0	60	
		Minor Paper for other discipline Monsoon Climatology	Pool Elective	2	2	0	0	30	0	0	
		SEC	Pool Elective	3	1	0	2	15	0	60	
		VAC	Pool Elective	2	1	1	0	15	15	0	
		Other 02 Major	Pool Elective	10	8	2	0	120	30	0	
				22				0	0	0	
Exit Option : Diploma in Field of Learning/discipline								0	0	0	
Third Year	V	Geography of India-I (Major-I)	Compulsory	2	2	0	0	30	0	0	
		Map Information	Compulsory	2	0	0	2	0	0	60	
		Applied IKS-II : Geography (Major-I)	Compulsory	3	2	1	0	30	15	0	
		Minor	Pool Elective	2	2	0	0	30	0	0	
		Note: Choose any one Paper i. Natural Resource Management ii. Regional Sdtudy of Developed and Developing Countries: USA & China	Elective	3	3	0	0	45	0	0	
		VAC	Pool Elective	2	1	1	0	15	15	0	
	Other 02 Major	Pool Elective	8	6	2	0	90	30	0		
					22				0	0	0
	VI	Geography of India-II (Major-I)	Compulsory	3	3	0	0	45	0	0	
		Field Study: Field Trip, Report Writing & Viva-Voce	Compulsory	2	0	0	2	0	0	60	
Note: Choose any one Paper (Major-I) i. Environmetal Geography ii. Geography of Health		Elective	3	3	0	0	45	0	0		
Minor		Pool Elective	2	2	0	0	30	0	0		
VAC		Pool Elective	2	1	1	0	15	15	0		
Internship/Apprenticeship (Major-I)		Compulsory	4	0	0	4	0	0	120		
Other 02 Major		Pool Elective	10	8	2	0	120	30	0		
					26				0	0	0
Exit Option : Basic UG degree in Field of Learning/discipline								0	0	0	
Fourth Year	VII	Urban & Regional Planning (Major-I)	Compulsory	4	4	0	0	60	0	0	

		GIS, Surveying and Computer Assisted Cartography	Compulsory	2	0	0	2	0	0	60
		Research Methodology (Hons. with Research) /History of Geographical Thought (Honours)	Compulsory	4	4	0	0	60	0	0
		Note: Choose any Two Paper (4+4) i. Climatology ii. Population Geography iii. Economic Geography	Elective	8	8	0	0	120	0	0
		Minor Paper From other discipline: GIS and Its Application	Pool Elective	4	4	0	0	60	0	0
				22				0	0	0
VIII		Remote Sensing and Geographical Information System	Compulsory	6	4	0	2	60	0	60
		Note: Choose any two papers: (4+4) i. Earths Dynamic System ii. Agricultural Geography iii. Cultural Geography	Elective	8	8	0	0	120	0	0
		Dissertation/Research Project & Viva Voce (Hons. with Research) or Field Survey, Report Writing & Viva-voce (Honours)	Compulsory	8	0	0	8	0	0	240
				22						
Completion : UG (Hons./Hons. with Research) degree in Field of Learning/discipline										
		Total Credits		180						

Department of Geography
B.A.(Honours/Honours with Research) in Geography
SYLLABUS (Based on NEP – 2020)
Session 2023 – 24

YEAR	SEMESTER	Course TITLE	Course Code	MAJOR/MINOR	COM/EL	LECTURE (L)	TUTORIAL (T)	Practical (P)	TOTAL CREDIT	TEACHING HOURS
1 ST	I ST	Physical Geography- Earth System	GEO-23101	Major	COM	02	00	02	04	60
		Introduction to IKS: Education	GEOIKS-2301	Major	COM	02	01		03	45 (30+15)
	II ND	Physical Geography: Atmospheric System	GEO-23102	Major	COM	03	0	02	05	75
2 ND	III RD	Human Geography	GEO-23103	Major	COM	02	00	02	04	60
		Applied IKS-I: Economics	GEOIKS-2302	Major	COM	02	01		03	45 (30+15)
		Minor Course for other discipline i. Natural Hazard Management (P1)	POOL B	Minor	POOLELE	02	-		02	30
	IV TH	Regional Geography of World	GEO-23104	Major	COM	03	00	02	05	75
		Minor Course for other discipline i. Monsoon Climatology (P2)	POOL B	Minor	POOLELE	02	-		02	30
3 RD	V TH	Geography of India-I	ECO-23105	Major	COM	02	00	02	04	60

		Applied IKS-2: Geography	GEOIKS- 2303	Major	COM	03	00		03	45
		Note: Choose any one Course i. Natural Resource Management ii. Regional Study of Developed & Developing Countries: USA and China	GEO-23106A/ GEO-23106B	Major	ELE	03	00		03	45
	VI TH	Geography of India-II	GEO- 23107	Major	COM	03	00	02	05	75
		Note: Choose any one Course i. Environment al Geography ii. Geography of Health	GEO- 23108A/ GEO-108B	Major	EL	03	-		03	45
		Minor	POOL B	Minor	POOLELE	02	00		02	30
4 TH	VII TH	Urban & Regional Planning	GEO- 23109	Major	COM	04	00	02	06	90
		Research Methodology/ History of Geographical Thought	GEO-23110A/ GEO- 23110B	Major	COM	04	-		04	60
		Note: Choose any Two Paper (4+4) i. Climatology ii. Population Geography iii. Economic Geography	GEO-23111A/ GEO- 23111B/ GEO-23111C	Major	ELE	08	-		08	120

		GIS & Its Applications	POOL B	MIN OR	POOL ELE	04	00		04	60
VIII TH		Remote Sensing & Geographical Information System	GEO-23112	Major	COM	02	00	04	06	90
		Note: Choose any two papers: (4+4) i. Earths Dynamic System ii. Agricultural Geography iii. Cultural Geography	GEO-23113A/ GEO-23113B/ GEO-23113C	Major	ELE	08	00		08	120
		Dissertation/Research Project Vivo Voce/Field Visit, Educational Tour & Viva Voce	GEO-23114B	Major	COM	-	-		08	240

B.A. (Honours/Honours with Research) in Geography

SEMESTER-I

B.A. (Honours/Honours with Research) in Geography		Year: B. A. 1st Year	Semester: Ist
Pedagogy:			
Course Code: GEO-23101		Course/Paper Title:	Physical Geography- Earth System
Course Objective & Outcomes: Course Objectives: 1. To provide a theoretical framework of origin of the earth, its structure and landform assemblages on its surface. 2. To understand the associations between major landforms, concepts and processes. 3. To provide a theoretical and empirical framework for understanding landscape evolution and the characteristics of individual types of geomorphic landscapes By the end of the Course, the student will be able to:			
CO1. Understand the functioning of Earth systems in real time and analyze how the natural and anthropogenic operating factors affect the development of landforms. CO2. Distinguish between the mechanisms that control these processes. CO3. Assess the roles of structure, stage and time in shaping the landforms and apply the knowledge in geographical research. CO4. Understand the structure and types of oceans continents. CO5. To understand the characteristics of Atlantic and Indian Oceans.			
Credit (L+T+P): 2+0+2		Paper (Core Compulsory / Elective): Compulsory	
Max. Marks : 80 + 20		Min. Passing Marks :	
Total Number of Lectures (Lecture – Tutorials – Practical): 30+0+60			
Units:	Topics:		No. of Lectures
I	Meaning, scope and development of physical geography; origin of the earth – Theories of Kant, Laplace, Chamberlin, James Jeans.		6
II	Geological history of earth; interior of the earth; Rocks; isostasy, earth's movements - endogenetic and exogenetic, volcanic and earthquakes;		6
III	Major landforms: mountains, plateaus and plains; weathering; drainage pattern; landforms formed by running water, wind and glacier		6
IV	Depth zones of the oceans continental shelf, continental slope, deep sea plains and ocean deeps.		6
V	Bottom relief of Atlantic and Indian Oceans; salinity; tides; ocean currents; coral reefs.		6
Suggested Readings:			
Books Recommended 1. Barry, R. G. and Chorley, R. J. (1998): Atmosphere, Weather and Climate. Routledge, London. 2. Bryant, H. Richard (2001): Physical Geography Made Simple, Rupa and Company, New Delhi. 3. Bunnett, R.B. (2003): Physical Geography in Diagrams, Fourth GCSE edition, Pearson Education (Singapore) Private Ltd. 4. Garrison, T. (1998): Oceanography, Wordsworth Company., Belmont. 5. Lake, P. (1979): Physical Geography (English and Hindi editions), Cambridge University Press, Cambridge. 6. Leong Goh Cheng (2003): Certificate Physical and Human Geography, Oxford University Press, New Delhi. 7. Monkhouse, F.J. (1979): Physical Geography. Methuen, London			

8. Singh, S. (2003): Physical Geography. (English and Hindi editions.). Prayag Pustak Bhawan, Allahabad;
9. Trewartha, G.T., Robinson, A.H., Hammond, E.H., and Horn, A.T. (1976/1990): Fundamentals of Physical Geography, 3rd edition. MacGraw-Hill, New York.
10. Strahler, A.N. and Stahler, A.M. (1992): Modern Physical Geography. John Wiley and Sons, New York.
11. Wooldridge, S.W. and Morgan, R.S. (1939): The Physical Basis of Geography- An Outline of Geomorphology. Longman, London. Recent edition and Reprint.

Suggested continuous E-Valuation Methods –

Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-

Assignment/Practical/Projects –	05 Marks
Internal Class Test –	05 Marks
Attendance/Behavior –	05 Marks

B.A. (Honours/Honours with Research) in Geography		Year:1	Semester: I
Pedagogy:			
Course Code: GEO-23101L	Course/Paper Title:	Analysis of Geographical Data and Graphical Representation	
Course Objective & Outcome: 1. To understand the concept of quantitative information in general and Geographical data in particular and to understand the importance of data analysis. 2. To impart knowledge of the methods of data collection, classification, tabulation, computation, analysis and presentation using graphical and diagrammatic methods. 3. To impart knowledge of various computation methods to achieve desired results.			
Course Outcomes: CO1. To differentiate between qualitative and quantitative information. CO2. To know the nature of various data, different sources and methods of data collection. CO3. To apply different methods for data collection and use the data for a comprehensive understanding of the spatial and non spatial phenomena. CO4. To present data through graphical and diagrammatic formats.			
Credit (L+T+P): 0+0+2		Paper (Core Compulsory / Elective): Compulsory	
Max. Marks : 80 + 20		Min. Passing Marks :	
Unit	Topics		Practical (Hours)
I	Section A: Analysis of Geographical Data Classification of spatial data; geographical data matrices; concept of measurement scales -nominal, ordinal, interval and ratio; concept & Types of variable independent dependent, discrete continuous; map scales - representative fraction (RF).		12
II	Statistical methods: (i) frequency distribution - class intervals, frequency, frequency density, cumulative and relative frequency; (ii) measure of central tendencies; mean, weighted mean, median, mode; (iii) measure of dispersion -- range, quartile, mean deviation, standard deviation, variance and coefficient of variation.		12
III	Transformation and combination of data- linear scale, standard score (Z score), rank order, Range standardization.		12
IV	Section B: Graphical Representation Scales and coordinate systems: arithmetic and logarithmic scale, Cartesian coordinates, polar coordinates.		12
V	Line graphs, circular graph, logarithmic graphs and scatter graphs; compound line and bar graphs, divided circles, divided rectangles and triangular graphs. Histograms, frequency curves, pyramids, block piles, hythergraph and climograph.		12

Books Recommended

1. S. Gregory: Statistical Methods and Geographer, Longmans and Co.Londan
2. M.R. Spingel: Theory and Problems of Statistics, McGraw Hill International.
3. N.M. Downie and R.W. Heath: Basic Statistical Methods, Harper Row and Co.
4. F.F. Goxton and L.J. Cowden: Applied General Statistics, Prentice Hall of India.
5. T.P. Kanitkar and S.V. Kulkarni: Surveying and Levelling, Part I, Ava Prakashan.
6. B.C. Punamia: Surveying, Standard Book House.
7. R.L. Singh: Prayogatmak Bhoogol ke Tatwa, Tara Publications, Varanasi.
8. R.C. Tiwari evm S.Tripathi: Abhinav Prayogatmak Bhoogol, Prayag Pustak Bhawan, Allahabad
9. R.L. Singh: Elements of Practical Geography, Kalyani Publication, New Delhi
10. A.K. Sarkar: Practical Geography-A Systematic Approach, Orient Longman, Kolkata, 1997.
11. G.R.P. Lawrence: Cartographic Methods, Methuen, London, 1968.

Programme: B.A. (Honours/Honours with Research) in Geography		Year: B.A. 1st Year	Semester: Ist
Pedagogy:			
Course Code: GEOIKS – 2301		Course/Paper Title:	Introduction to Indian Knowledge System
Course Outcomes: After completing this course, the students will be able to -			
CO 1: explain the the foundational Concepts & Principles of IKS.			
CO 2: explain the historical development and evolution of Indian Intellectual traditions.			
CO 3: explain the knowledge key texts, thinkers, and schools of thought within the IKS.			
CO 4: analyze the interdisciplinary nature of Indian knowledge, integrating philosophy, spirituality, science, arts, and literature though the study of IKS.			
CO 5: explain the holistic and multidimensional nature of Indian Thought.			
Credit: 03		Paper (Core Compulsory / Elective): Core Compulsory	
Max. Marks : 20 + 80			
Total Number of Lectures (Lecture – Tutorials – Practical): 02 + 1 + 0			
Units:	Topics:		No. of Lectures
I	Introduction to Indian Knowledge System <ul style="list-style-type: none"> • Definition, Concepts and Scope of IKS • IKS based approache on Indian Knowledge System & Role of Guru (teacher) • Understanding the concepts of dharma, karma, and the four purusharthas (goals of life) 		06
II	Vedic Knowledge and Philosophy <ul style="list-style-type: none"> • Study of the Vedas, including the Rigveda, Yajurveda, Samaveda, and Atharvaveda • Introduction to Upanishads and their metaphysical and philosophical teachings • Analysis of the six orthodox (astika) schools of Indian philosophy (e.g., Nyaya, Vaisheshika, Yoga, Samkhya, Mimamsa, and Vedanta) 		06
III	Unit 3: Spiritual and Mystical Traditions <ul style="list-style-type: none"> • Exploration of Hindu spiritual traditions, including Bhakti, Karma, Jnana, and Raja Yoga • Study of Advaita Vedanta and its nondualistic philosophy • Introduction to other spiritual paths like Tantra and Sufism in the Indian context 		06
IV	Scientific and Technological Advancements <ul style="list-style-type: none"> • Examination of ancient Indian contributions to mathematics, astronomy, and medicine • Study of scientific treatises such as Aryabhatiya, Sushruta Samhita, and Charaka Samhita • Exploration of the Indian concept of time, measurement, and cosmology 		06
V	Indian Arts, Literature, and Aesthetics		06

- Analysis of Indian classical music, dance, and theater traditions
- Study of classical Sanskrit literature, including the works of Kalidasa and Valmiki
- Understanding the concept of rasa (aesthetic experience) and its manifestations in Indian arts
- Modern Interpretation and Contemporary Relevance

Suggested Readings:

- "Indian Philosophy: A Very Short Introduction" by Sue Hamilton
- "A History of Indian Philosophy" by Surendranath Dasgupta
- "Indian Philosophy: A Critical Survey" by Chandradhar Sharma
- "India: A History" by John Keay
- "The Wonder That Was India" by A.L. Basham
- "Ancient India" by R.S. Sharma
- "The Oxford History of India" edited by Percival Spear
- "A History of Indian Literature" (multiple volumes) by Sisir Kumar Das
- "Indian English Literature" by M. K. Naik
- "The Norton Anthology of World Literature: India, Pakistan, and Bangladesh" edited by Sarah Lawall
- "Indian Art" by Partha Mitter
- "The Art and Architecture of the Indian Subcontinent" by J.C. Harle
- "Indian Architecture: Buddhist and Hindu Period" by Percy Brown
- "The Crest of the Peacock: Non-European Roots of Mathematics" by George Gheverghese Joseph
- "Indian Science and Technology in the Eighteenth Century" by Dharampal
- "Raga Mala: The Autobiography of Ravi Shankar" by Ravi Shankar
- "The Ragas of North India" by Walter Kaufmann
- "The Complete Book of Ayurvedic Home Remedies" by Vasant Lad
- "Ayurveda: The Science of Self-Healing" by Vasant Lad
- "The Heart of Yoga: Developing a Personal Practice" by T.K.V. Desikachar
- "The Yoga Sutras of Patanjali" translated by Swami Satchidananda

Suggested continuous E-Valuation Methods –

Continuous Internal Evaluation (CIL)

Total marks for each course shall be based on internal assessment (20%) and semester end examination (80%). The internal assessment of 20% shall be distributed as under:

- (i) Internal Class Test – 10%.
- (ii) Assignment/Project/Practical – 5%
- (iii) Attendance/Behavior – 5%.

Other Courses:

Minor : To be Chosed from POOL B

Skill Enhancement Course (SEC) : To be Chosed from POOL C

Value Added Course : To be Chosed from POOL D

SEMESTER-II

Programme: B.A. (Honours/Honours with Research) in Geography		Year: B. A. 1st Year	Semester: IInd
Pedagogy:			
Course Code: GEO-23102		Course/Paper Title: Physical Geography: Atmospheric System	
Course Objectives: 1. Understand the elements of weather and climate. 2. Understand the interaction between the atmosphere and the earth's surface. 3. Learn to associate climate with other environmental and human issues. 4. Understand the importance of the atmospheric pressure and wind systems and its influence on human life and activities. By the end of the Course, the student will be able to:			
CO1. To understand the different atmospheric phenomena and climate change. CO2. Assessing the role of air pressure and Winds of the earth. CO3. To analyze the dynamics of the Earth's atmosphere and global climate. CO4. To understand the significances of the biosphere. CO5. Assessing the role of man in global climate change.			
Credit: 3+0+2		Paper (Core Compulsory / Elective): Compulsory	
Max. Marks : 80 + 20		Min. Passing Marks :	
Total Number of Lectures (Lecture – Tutorials – Practical): 45+0+60			
Units:	Topics:	No. of Lectures	
I	Composition and structure of the atmosphere; Insolation; Temperature: vertical and horizontal distribution	9	
II	Pressure and pressure belts; Winds: planetary, periodic and local	9	
III	Monsoons; humidity and rainfall; Koeppen & Thonthwaite classification of world climates; Major climatic types- equatorial, monsoon, Mediterranean, west European and Savanna types	9	
IV	Abiotic and biotic components of the biosphere; characteristics and types of ecosystem; biosphere as an ecosystem; biotic succession	9	
V	Man and biosphere, distribution and dispersal of plants; biome types- equatorial rainforest, monsoon, savanna and temperate grassland biomes	9	
Suggested Readings:			
Books Recommended 1. A. Holmes and D.L. Holmes: Principles of Physical Geology, ELBS. 2. A.N. Strahler and A.H. Strahler: Modern Physical Geography, John Wiley and Sons, New York. 3. F. Press and R. Siever: The Earth, W. H. Freeman and Co., San Francisco. 4. M.J. Bradshaw et.al.: The Earth's Changing Surface, ELBS. 5. J.S. Gardner: Physical Geography, Harper Row and Co. 6. R.H. Bryant: Physical Geography, W.H. Allen and Co. 7. Savindra Singh: Physical Geography, Prayag Pustak Bhawan, Allahabad. 8. Savindra Singh: Bhautik Bhoogol, Vasundhara Prakashan, Gorakhpur			

9. G.T. Trewartha and L.A. Horn: An Introduction to Climate, McGraw Hill and Co.
10. H.J. Critchfield: General Climatology, Prentice Hall of India, New Delhi.
11. D.S. Lal: Climatology, Sharda Pustak Bhawan, Allahabad.
12. Savindra Singh: Climatology, Prayag Pustak Bhawan, Allahabad
13. M.G. Gross: Oceanography, A View of the Earth, McGraw Hill and Co.
14. R.C. Sharma and M.Vatal: Oceanography for Geographers, Chaitanya Publishing House, Allahabad.
15. Healey Cox and Moors: Biogeography, Blackwell and Co.
16. Wytts: Principles of Biogeography, McGraw Hill & Co.
17. Savindra Singh: Environmental Geography, Prayag Pustak Bhawan, Allahabad.
18. Savindra Singh: Paryavarana Bhoogol, Prayag Pustak Bhawan, Allahabad
19. Savindra Singh: Jalvayu Vigyan , Prayag Pustak Bhawan, Allahabad
20. Daya Shankar Lal: Jalvayu Vigyan avam Samudra Vigyan, Sharda Pustak Bhawan, Allahabad

Suggested continuous E-Valuation Methods –

Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-

Assignment/Practical/Projects – 05 Marks

Internal Class Test – 10 Marks

Attendance/Behavior – 05 Marks

Programme: B.A. (Honours/Honours with Research) in Geography		Year: B. A. 1st Year	Semester: IInd
Pedagogy:			
Course Code: GEO-23102L		Course/Paper Title:	Field Work - Surveying and Mapping
Course Objectives:			
1. This course shall introduce the basic concepts in field work and methods of map making in geographical studies.			
2. This paper shall elucidate about defining the field and identifying the case studies, field techniques.			
3. This course shall provide detailed understanding related to questionnaire development, mapping and preparation of the field report.			
Buy the end of the Course, the student will be able to:			
Course Outcomes:			
1. This paper shall enable the students to understand fundamental concepts and issues related to field work and mapping in geographical studies.			
2. This course shall enable the students to comprehend about field work and field techniques.			
3. Students shall be well-versed with the development of questionnaire and writing the field report.			
Credit: 0+0+2		Paper (Core Compulsory / Elective): Compulsory	
Max. Marks : 80 + 20		Min. Passing Marks :	
Total Number of Lectures (Lecture – Tutorials – Practical): 0+0+60			
Units:	Topics:		No. of Lectures
I	Plane Table Survey: (i) Preparation of map by radial and intersection methods		12
II	(ii) Resection (Three-point problem) (a) Tracing paper or mechanical method, (b) Geometrical method, (c) Trial and error method (inside and outside the triangle)		12

III	Map Scales –RF, construction of plain, comparative diagonal scale	12
IV	Prismatic Compass Survey: (i) Preparation of map by open traverse (field book)	12
V	(ii) Preparation of map by closed traverse (field book, correction of bearing and removal of closing error).	12

Suggested Readings:

Books Recommended

1. T.P. Kanitkar and S.V. Kulkarni: Surveying and Levelling, Part I, Avad Prakashan.
2. B.C. Punamia: Surveying, Standard Book House.
3. R.L. Singh: Prayogatmak Bhoogol ke Tatwa , Tara Publications, Varanasi.
4. R.C. Tiwari evm S. Tripathi: Abhinav Prayogatmak Bhoogol, Prayag Pustak Bhawan, Allahabad.
5. R.L. Singh: Elements of Practical Geography, Kalyani Publication, New Delhi
6. A.K. Sarkar: Practical Geography-A Systematic Approach, Orient Longman, Kolkata, 1997.
7. G.R.P. Lawrence: Cartographic Methods, Methuen, London, 1968.

Suggested continuous E-Valuation Methods –

Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-

Assignment/Practical/Projects – 05 Marks
 Internal Class Test – 10 Marks
 Attendance/Behavior – 05 Marks

Other Courses to Opt:

Minor : To be Chosed from POOL B

Skill Enhancement Course (SEC) : To be Chosed from POOL C

Value Added Course : To be Chosed from POOL D

Exit Option: Undergraduate Certificate (in the field of learning/discipline) for those who exit after the first year (two semesters) of the undergraduate programme. (Programme duration: first year or two semesters of the undergraduate programme) [NSQF Level 5]

SEMESTER-III

Programme: B.A. (Honours/Honours with Research) in Geography		Year: B. A. 2nd Year	Semester: IIIrd
Pedagogy:			
Course Code: GEO-23103		Course/Paper Title: Human Geography	
Course Objectives:			
1. Various dimensions of human geography and cultural landscape. 2. Detailed analysis of population growth and distribution. 3. Understanding of the relationship between population and resource. Course Outcome: By the end of the Course, the student will be able to:			
CO1. Detailed exposure of contemporary relevance of cultural landscape. CO2. In-depth knowledge of space and society of cultural regions. CO3. Understand the human adaptation to environment. CO4. Role of population in our society. CO5. Understanding the settlement pattern and population resource relationship.			
Credit: 2+0+2		Paper (Core Compulsory / Elective): Compulsory	
Max. Marks : 80 + 20		Min. Passing Marks :	
Total Number of Lectures (Lecture – Tutorials – Practical): 30+0+60			
Units:	Topics:		No. of Lectures
I	Nature, scope and development of human geography; Branches of human geography; man and environment relationship - determinism, possibilism Neo determinism and probabilism.		6
II	Approaches - ecological, spatial, behavioural and welfare; Evolution of man; Classification of races; Characteristics of races and their broad distribution.		6
III	Human adaptation to environment: Eskimo, Masai and Bushman; Primitive people of India: Tharu, Naga and Bhil.		6
IV	Growth of population; Distribution of population; Major human agglomerations; Types of Migration; migration problems and planning Trends of Urbanization.		6
V	Rural settlements: characteristics, types and regional pattern; Urban settlements: evolution, functional types, patterns, classification; and morphology; Rural houses in India: types, classification and regional pattern.		6
Suggested Readings:			
Books Recommended			
1. Chisholm, M. (1985): Human Geography, 2nd edition, Penguin Books, London.			
2. De Blij, H.J.(1996): Human Geography: Culture, Society and Space,. 2nd edition. John Wiley and Sons, New York,			
3. Fellman, J. D., Arthur, G., Judith, G., Hopkins, J. and Dan, S. (2007): Human Geography: Landscapes of Human Activities. McGraw-Hill, New York. 10 th edition.			
4. Haggett, P. (2004): Geography: A Modern Synthesis. 8th edition, Harper and Row, New York.			
5. Hussain, M. (1994): Human Geography, Rawat Publications, Jaipur.			
6. Johnston, R. J., Gregory, D., Pratt, G. and Watts, M. (2009): The Dictionary of Human Geography. 5th edition, Basil Blackwell Publishers, Oxford.			
7. Kaushik, S.D. and Sharma, A.K. (1996): Principles of Human Geography (in Hindi), Rastogi Publication, Meerut.			
8. Norton, W. (2008): Human Geography, Oxford University Press, New York. 5 th ed.			
9. Singh, K. N. and Singh, J. (2001): Manav Bhugol. Gyanodaya Prakashan, Gorakhpur. 2 nd edition.			
10. Singh, L.R. (2005): Fundamentals of Human Geography, Sharda Pustak Bhawan, Allahabad			
11. Smith, D. M.(1977): Human Geography- A Welfare Approach, Edward Arnold (Publishers) Ltd., London			

12. Stoddard, R.H., Wishart, D.J. and Blouet, B.W. (1986): Human Geography. Prentice-Hall, Englewood Cliffs, New Jersey.

Suggested continuous E-Valuation Methods –

Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-

Assignment/Practical/Projects – 05 Marks

Internal Class Test – 10 Marks

Attendance/Behavior – 05 Marks

Programme: B.A. (Honours/Honours with Research) in Geography	Year: B. A. 2nd Year	Semester: IIIrd
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Pedagogy:

Course Code: GEO-23103L

Course/Paper Title: Map Projection and Weather Map

Course Objectives:

1. Create professional and aesthetically pleasing maps through thoughtful application of cartographic conventions;
2. Develop an understanding of the concepts regarding scale, map projections to suit map purposes;
3. To understand the elements of weather and techniques of interpretation of weather maps.

Course Outcome: By the end of the Course, the student will be able to:

CO1. Explain how maps work, conceptually and technically and will be able to understand science and art of cartography.

CO2. Recognize the benefits and limitations of some common map projections and their use.

CO3. Understand and perform interpretation of weather maps.

Credit: 0+0+2

Paper (Core Compulsory / Elective):
Compulsory

Max. Marks : 80 + 20

Min. Passing Marks :

Total Number of Lectures (Lecture – Tutorials – Practical): 0+0+60

Units:	Topics:	No. of Lectures
I	Map Projection: Conical: simple conic with one and two standard parallels,	12
II	Bonne's; Cylindrical: simple and equal area;	12
III	Zenithal (Polar case): equidistant and equal area.	12
IV	Weather Map: Weather symbols,	12
V	Representation of atmospheric features, Interpretation of Indian daily weather maps (July, October and January)	12

Suggested Readings:

Books Recommended

1. Monkhouse, F. J. and Wilkinson, F.J. (1985): Maps and Diagrams. Methuen, London.
2. Raisz, E. (1962): General Cartography. John Wiley and Sons, New York. 5th edition.
3. Robinson, A., Sale, R. Morrison, J. and Muehrcke, P. C. (1984): Elements of Cartography, John Wiley and Sons, New York
4. Sarkar, A. K. (1997): Practical Geography: A Systematic Approach. Orient Longman, Kolkata.
5. Sharma, J. P. (2001): Prayogik Bhugol. Rastogi Publication, Meerut 3rd edition.
6. Singh, R.L. and Singh, Rana P.B. (1993): Elements of Practical Geography. (Hindi and English editions). Kalyani Publishers, New Delhi.

Suggested continuous E-Valuation Methods –

Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-

Assignment/Practical/Projects – 05 Marks

Internal Class Test – 10 Marks

Attendance/Behavior – 05 Marks

Programme: B.A. (Honours/Honours with Research) in Geography		Year: B.A. 2nd Year	Semester: IIIrd
Pedagogy:			
Course Code: GEOIKS – 2302		Course/Paper Title:	Applied IKS-1: Geography
Course Outcomes: After completing this course, the students will be able to -			
CO 1: explain the the foundational Concepts & Principles of IKS.			
CO 2: explain the historical development and evolution of Indian Intellectual traditions.			
CO 3: explain the knowledge key texts, thinkers, and schools of thought within the IKS.			
CO 4: analyze the interdisciplinary nature of Indian knowledge, integrating philosophy, spirituality, science, arts, and literature though the study of IKS.			
Credit: 03			Paper (Core Compulsory / Elective): Core Compulsory
Max. Marks : 20 + 80			
Total Number of Lectures (Lecture – Tutorials – Practical): 30 + 15 + 0			
Units:	Topics:		No. of Lectures
I	Introduction to Indian Knowledge System and Geography		06
II	Indian Philosophical Framework and Natural Environment		06
III	Traditional Resource Management and Biodiversity		06
IV	Indian Cosmology and Spatial Concepts		06
V	Mapping Techniques and Modern Relevance		06
Suggested Readings:			
<ul style="list-style-type: none"> "Indian Geography" by Majid Husain: This comprehensive textbook covers various aspects of Indian geography, including the application of traditional knowledge systems in understanding the country's geographical features. 			

- "Geographical Thought: A Contextual History of Ideas" by Daya Nath Tripathi: This book delves into the historical development of geographical thought in India, shedding light on how indigenous knowledge systems influenced the understanding of geography.
- "Traditional Ecological Knowledge and Natural Resource Management" edited by R. S. Rana and M. S. Rawat: This edited volume explores the role of traditional ecological knowledge in natural resource management, with a focus on Indian contexts.
- "Geographical Thought: An Introduction to Ideas in Human Geography" by Anoop Nayak and Alex Jeffrey: While not solely focused on India, this book provides valuable insights into how geographical thought has evolved globally and how Indian knowledge systems fit into the broader context of human geography.
- "Indian Knowledge Systems" by Shiv Nath Kak: This book discusses the various knowledge systems in India, including their relevance to geography and environmental studies. "The Oxford History of India" edited by Percival Spear

Suggested continuous E-Valuation Methods –

Continuous Internal Evaluation (CIE)

Total marks for each course shall be based on internal assessment (20%) and semester end examination (80%). The internal assessment of 20% shall be distributed as under:

- (iv) Internal Class Test – 10%.
- (v) Assignment/Project/Practical – 5%
- (vi) Attendance/Behavior – 5%.

MINOR ELECTIVE: To be Chosed by Students of Other Discipline

Programme: B.A. (Honours/Honours with Research) in Geography		Year: B. A. 2nd Year	Semester: IIIth
Pedagogy:			
Course Code: From POOL B		Course/Paper Title: Natural Hazard Management	
Course Objective & Outcomes: Course Objectives:			
1. To know about different types of natural hazards. 2. To know about the causes and management of natural hazards.			
By the end of the Course, the student will be able to:			
CO1. To know about the distribution of different types of natural hazards and man's role in generating such hazards. CO2. To know the occurrences of different types of natural hazards in India. CO3. To know about the management and prediction of natural hazards. CO4. To understand the natural hazards in world, Seismic zones, Tsunamis and landslides prone areas. CO5. To understand the management of Natural Hazards and prediction of natural hazards.			
Credit: 2+0+0		Paper (Core Compulsory / Elective): Elective (minor)	
Max. Marks : 80 + 20		Min. Passing Marks :	
Total Number of Lectures (Lecture – Tutorials – Practical): 30+0+0			
Units:	Topics:		No. of Lectures
I	Types of natural hazards-Earthquake, Tsunamis, Volcanic eruptions, Landslides, Avalanches, Floods, famines and Droughts, Cyclones, Distribution of natural hazards; Hazard prone areas of the world and India; Man's role in natural hazard.		6
II	Natural Hazards in India: Seismic zones, Tsunamis, Landslides prone areas, Flood prone areas, Drought prone areas; Damager due to natural hazards in India.		6

III	Some natural hazards of recent history-Earthquake-Koyna, Utterkashi, Bhuj; Tsunamis of 2005. Landslides in the Garhwal Himalays; Floods of the Ganga valley; Cyclones along Orissa Coast; Drought prone areas of India.	6
IV	Natural Hazards in world: Seismic zones, Tsunamis, Landslides prone areas, Flood prone areas.	6
V	Management of Natural Hazards- Prediction of natural hazards; Control measures for natural hazards; Planning for natural hazards- (a) long-term policy.	6

Suggested Readings:

Books Recommended

1. C. Enbleton: Natural Hazards and Global Change, I.T.C. Journal, 1989, 3/4, pp. 169-178.
2. W.J. Petak and A.D. Atkinson: Natural Hazard Risk Assessment and Public Policy, Spinger-Verlay, New York, 1982.
3. L. Tianch: Landslide Hazard Mapping and Management in China, ICIMOD, Nepal, 1996.
4. K.S. Valdiya: Environmental Geology, Tata Mc Graw Hill Co. Ltd. New Delhi, 1987.
5. Q. Zareba and V. Mance : Landslides and their Control, Elsevier Amsterdam, 1969.
6. G.F. White (Ed): Natural Hazards: Local, National, Global, Oxford University Press, London, 1974.
7. H.K. Gupta: Dans and Earthquakes, Elsever, Amsterdam, 1976.
8. I. Burton et al: The Environment as Hazard, O.P.U. New York, 1978.
9. B.A. Bolt et al (Ed): Geological Hazards, Spinger Verlay, New York, 1950.

This course can be opted as an elective by the students of other discipline.

Suggested continuous E-Valuation Methods –

Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-

Assignment/Practical/Projects –	05 Marks
Internal Class Test –	10 Marks
Attendance/Behavior –	05 Marks

Other Courses to Opt:

Minor : To be Chosed from POOL B

Skill Enhancement Course (SEC) : To be Chosed from POOL C

Value Added Course : To be Chosed from POOL D

SEMESTER-IV

Programme: B.A. (Honours/Honours with Research) in Geography	Year: B. A. 2nd Year	Semester: IVth
Pedagogy:		
Course Code: GEO-23104	Course/Paper Regional Geography of the World Title:	
Course Objective & Outcomes:		
1. To understand the location of Asian, European, North American and Australian countries.		
2. To understand the physical, social and economic characteristics of the regions.		
By the end of the Course, the student will be able to:		
CO1. To understand the concept and criteria of regionalisation.		
CO2. To locate countries within the regions.		
CO3. To understand the socio-economic and cultural background of development of the countries.		
CO4. To understand the physical and socio-economic characteristics of Asia.		
CO5. To understand the physical and socio-economic characteristics of Europe.		
CO6. To understand the physical, demography and economic characteristics of North America, Africa and Australia.		
Credit (L+T+P): 3+0+2	Paper (Core Compulsory / Elective): Compulsory	

Max. Marks : 80 + 20		Min. Passing Marks :
Total Number of Lectures (Lecture – Tutorials – Practical): 45+0+60		
Units:	Topics:	No. of Lectures
I	Concept of region in geography; systematic vs regional geography, types and classification of regions (formal and functional); Criteria of delimitation and characteristics of natural, cultural, economic and political regions.	9
II	Asia in the context of world; structure; relief; drainage; climate; natural vegetation and soils; spatial distribution of population; economic base; Regional studies of south, south–east, east and west Asia.	9
III	Europe: Physical, economic and demographic characteristics; Regional studies of British Isles, Eastern, Western and Mediterranean realm.	9
IV	North America: Physical, economic and demographic set up; Regional studies of North America.	9
V	Africa: Physical, economic and demographic set up; Regional studies of Africa Australia: Physical, economic and demographic set up; Regional studies of Australia	9
Suggested Readings:		
Books Recommended		
<ol style="list-style-type: none"> 1. R. Hartshorne : Perspective on Nature of Geography. 2. R. Minshull : Regional Geography - Theory and Practice. 3. G.B. Cressey : Asia's Land and People. 4. W.G. Lant, O.H.K. Spate and C. Fisher: Changing map of Asia. 5. N. Ginsberg (ed.) : The Pattern of Asia. 6. J Kole: A Geography of the World's Major Regions, Routledge, London, 1996. 7. H.J. Deblij: Geography: Regions and Concepts, John Wiley, New York, 1994 8. R.H. Jakson & L.E. Hudman: World Regional Geography :Issues for Today, John Wiley New York, 1991. 9. G.H. Minshull: Western Europe, odd and & Stoughton, NY. 1984. 10. J.H. Patterson: Geography of Canada and the United States, Oxford University Press, 1985. 11. J.P. Kole: Latin America-Economic and Social Geography, Poutter worth, USA, 1975 12. S.P. Dickonson et al: The Geography of the Third World, Routledge, London, 1996 13. P. Gourow: The Terrified World: Longman, London, 1980 14 P.W. Ward & A Miller World Regional Geography: A Question of Place John Willey, NY, 1989. 		
<u>Suggested continuous E-Valuation Methods –</u>		
Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-		
Assignment/Practical/Projects – 05 Marks		
Internal Class Test – 10 Marks		
Attendance/Behavior – 05 Marks		

MINOR ELECTIVE: For Students of Other Discipline

Programme: B.A. (Honours/Honours with Research) in Geography	Year: B. A. 2nd Year	Semester: IVth
Pedagogy:		
Course Code: POOL B	Course/Paper Title: Monsoon Climatology	
Course Objective & Outcomes:		
<ol style="list-style-type: none"> 1. To understand the characteristics of monsoon climate. 2. To understand the mechanics of monsoon and its influence on different regions as well as on human activities. 3. To know about the regions demarcated based upon the characteristics of monsoon climate. 		
By the end of the Course, the student will be able to:		
CO1. To understand the monsoon mechanics and role of jet streams, tropical air masses, Tibetan plateau, southern oscillation and upper air circulation in the arrival and departure of monsoon.		
CO2. To know about the other weather phenomena such as tropical disturbances prevalent in the monsoonal climate areas.		
CO3. To know the regionalisation of India based on climatic characteristics such as agro climatic regions.		
CO4. The students will be able to understand the classification of tropical climates, regionalization of India based on the scheme of Koppen and Thonthwaite.		

CO5. The students will be able to understand the desertification in monsoon lands, Man-made climate, urban and industrial centres and related problems.		
Credit: 2+0+0		Paper (Core Compulsory / Elective): Elective (minor)
Max. Marks : 80 + 20		Min. Passing Marks :
Total Number of Lectures (Lecture – Tutorials – Practical): 30+0+0		
Units:	Topics:	No. of Lectures
I	Extent of Monsoon Climate; Classical Monsoon, areas of South Asia; Heat budget of the tropics- Role of tropics in the general circulation of the atmosphere; Driving forces- Jet Streams and their influence; Air masses of the tropics and their characteristics; Air masses over South Asia and their seasonal variations.	6
II	The Monsoon- Genesis and development of tropical monsoons; Mechanism of the Indian Monsoon; Theories of the origin of monsoon- thermal concept, dynamic concept, role of Jet Streams, Tibet Plateau, el-niño, Southern oscillations; Forecasting Indian Monsoons.	6
III	Tropical Disturbances- Cyclones, Thunderstorms, Tornadoes- their characteristics, frequencies and paths; Cyclones in the Bay of Bengal and the Arabian Sea; Tracking of tropical disturbances.	6
IV	Classification of tropical climates-Regionalization of India based on the scheme of Koppen, Thonhwaite and Penman; Water balance: areas of surplus and deficit; Droughts and famines Drought prone areas of India; Floods in India.	6
V	Agro- Climatic regions of India; Human impact on monsoon climate; Desertification in monsoon lands; Man-made climate: urban and industrial centres and related problems; Climatic approach to housing design- surface and building materials and their impact- House Types in the Ganga Valley in relation to climate.	6
Suggested Readings:		
<p>Books Recommended</p> <ol style="list-style-type: none"> 1. J.G. Lockwood: World Climatology and Environmental Approach, Edward Arnold, London, 1974. 2. S. Neuwal: Tropical Climatology, John Willey and Sons Ltd. New York, 1977. 3. M.A. Garbell: Tropical and Equatorial Meteorology, Sir Isaac Pitman and Sons Ltd. 4. C.S. Ramage: Monsoon Meteorology, Academic Press, U.K., 1971. 5. H. Riehl: Tropical Meteorology, Mc Graw Hill Co. U.K., 1954. 6. G.T. Trewartha: The Earth's Problem Climates, Methuen & Co. Ltd. London, 1962. 7. V.S. Datye et. al. (Ed.) Explorations in the Tropic, Prof. K.R. Dikshit, Felicitation Volume, Pune, 1987. 8. V.P. Subrahmanyam: Contributions to Indian Geography, Part III –General Climatology, Heritage Publication, New Delhi, 1983. 9. A.R. Subrahmanyam: Climatic Variability in India, Annals of NAGI, 12-1-2. 1992. 10. M.M. Yoshino (Ed) : Water Balance of Monsoon Asia, University of Tokyo, Press Tokyo, 1971. 11. W.Bach,J.Pankrath and W. Kellogg: Man's Impact on Climate, Elsevier Scientific Publishing Co. New York, 1979 12. J.R. Mather: Climatology: Fundamentals and Applications, Mc Graw Hill Book Co. New York, 1974 13. Savindra Singh: Climatology, Prayag Pustak Bhawan,Allahabad, 2006 14. D.S. Lal: Climatology, Sharda Pustak Bhawan, Allahabad 		
This course can be opted as an elective by the students of other discipline – Other than Geography		
<u>Suggested continuous E-Valuation Methods –</u>		
Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-		
Assignment/Practical/Projects – 05 Marks		
Internal Class Test – 10 Marks		
Attendance/Behavior – 05 Marks		

Other Courses:

Minor : To be Chosed from POOL B

Skill Enhancement Course (SEC) : To be Chosed from POOL C

Value Added Course : To be Chosed from POOL D

Exit Option: Undergraduate Diploma (in the field of learning/discipline) for those who exit after two years (four semesters) of the undergraduate programme (Programme duration: First two years or four semesters of the undergraduate programme) [NSQF Level 6]

SEMESTER-V

Programme: B.A. (Honours/Honours with Research) in Geography		Year: B. A. 3rd Year	Semester: Vth
Pedagogy:			
Course Code: GEO-23105		Course/Paper Title: Geography of India-I	
Course Objective & Outcomes:			
Course Objectives:			
<ol style="list-style-type: none"> 1. Understanding of regional divisions of India in terms of their uniqueness and similarities. 2. Understand the various dimensions of the geographical features of India and their spatial distribution. 3. Understand the spatial distribution of economic resources of India. 			
Course Outcome: By the end of the Course, the student will be able to:			
CO1. Understand the spatial distribution of physical resources of India.			
CO2. Understand the regional division of India on the basis of its physical resources.			
CO3. To develop an understanding on how regional development is related to the availability and use of physical resources.			
CO4. To Understand the crops production, properties and spatial distribution in India.			
CO5. To Understand the characteristics of Meso-regions of India.			
Credit: 2+0+2		Paper (Core Compulsory / Elective): Compulsory	
Max. Marks : 80 + 20		Min. Passing Marks :	
Total Number of Lectures (Lecture – Tutorials – Practical): 30+0+60			
Units:	Topics:	No. of Lectures	
I	Geology; Physiographic divisions; Drainage systems; Climate and climatic regions,	9	
II	Soil types and distribution; soil erosion and conservation; forests - types and their economic utilization.	9	
III	Minerals and power resources (iron ore, and coal); Multipurpose projects: Damodar Valley and Bhakhra Nangal; Irrigation	9	
IV	Crops (rice, wheat, cotton, sugarcane, and tea); Agricultural regions; Green revolution and its consequences.	9	
V	Meso-regions of India (Karnataka plateau, and Uttarakhand) and their characteristics	9	
Suggested Readings:			
Books Recommended			
1. R.L. Singh (ed.): India : A Regional Geography, NGSI, B.H.U., Varanasi 1971.			
2. T.C. Sharma and O. Coutinho: Economic and Commercial Geography of India.			
3. B.N. Sinha: Industrial Geography of India.			
4. O.H.K. Spate and A.T.A. Learmonth: India and Pakistan.			
5. D.N. Wadia : Geology of India.			
6. R.C. Tiwari, Geography of India, Prayag Pustak Bhawan, Allahabad.			
7 D.R. Khullar : India : A Comprehensive Geography, Kalyani Publishers, Ludhiana.			
8. India Reference Annual 2006, Publication Division, Govt. of India, New Delhi			
9. Ram Chandra Tiwari: Bharat Ka Bhoogol, Prayag Pustak Bhawan, Allahabad			
10. C.B. Mamoria: Bharat ka Bhoogol, Sahitya Bhawan, Agra			
11. Alka Gautam: Bharat Ka Bhoogol Sharda Pustak Bhawan, Allahabad			
12. Bharat 2006: Publication Division, Bharat Sarkar, New Delhi			
This course can be opted as an elective by the students of following subjects –			
<u>Suggested continuous E-Valuation Methods –</u>			

Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-

Assignment/Practical/Projects – 05 Marks
 Internal Class Test – 10 Marks
 Attendance/Behavior – 05 Marks

Programme: B.A. (Honours/Honours with Research) in Geography		Year: B. A. 3rd Year	Semester: Vth
Pedagogy:			
Course Code: GEO-23105L	Course/Paper Title: Geography of India-I (Map Information)		
Course Objective & Outcomes:			
Course Objectives:			
1. To understand the importance of thematic maps. 2. To interpret the various thematic maps. 3. To understand the use of computer in map and spatial data analysis. Course Outcome: By the end of the Course, the student will be able to:			
CO1. Comprehend the concept of scales and representation of spatial data through maps. CO2. Interpret topographical, geological and weather maps. CO3. Apply various techniques to interpret the map information. CO4. To learn computer awareness for computer cartography.			
Credit: 0+0+2		Paper (Core Compulsory / Elective): Compulsory	
Max. Marks : 80 + 20		Min. Passing Marks :	
Total Number of Lectures (Lecture – Tutorials – Practical): 0+0+60			
Units:	Topics:		No. of Lectures
I	Section A: Primary and Special Purpose 1. Topographical maps (a) Scales of different topographical maps (b) Representation of reliefs: contours - types, intervals, slopes, characteristics and Patterns representation of important landforms by contours and their cross sections. (c) Representation of physical and man-made features by conventional symbols. Description of topographical maps of different physical regions of India.		12
II	2. Weather Maps (a) Representation of weather elements (b) Reading of weather maps © Preparation of weather map through given weather summaries. 3. Geological Map (a) Representation of rock outcrops, bedding planes, dips and strikes, unconformity and faults. (b) Drawing of cross sections and determination of dip angles and bed thickness. © Interpretation of Geological Features.		12
III	Section B: Processing of mapped information 1. Analysis of Settlement- mean centre, standard distance, quadrat count method nearest neighbour method. 2. Analysis of Transport and Drainage network- measurement of length, Transport network, cyclometric number, B India and connectivity, matrix. Drainage network ordering, bifurcation ratio and length ratio, drainage density and drainaged district. 3. Analysis of Areas-Slope Indices and contract number measurement of area,		12
IV	4. Analysis relief, profiles, areas height diagram, relative relief, slope analysis, altimetric and hypsometric analysis. 5. Inferential statistics-parametric and non parametric lists-population and sample, the null hypothesis, level of significance, one and two tailed tests, by type I and Type II errors procedure for conducting a statistical test, chi-square test, student's T test, variance test (F test).		12
V	Section C: Basics of Computer System		12

Starting word, creating, serving and inserting files; formatting pages, paragraphs and sections; Editing texts; Tabs and tables; Working with charts and graphs; Printing; Application in geographical mapping.

Suggested Readings:

Books Recommended

1. A.H. Robinson et.al. : Elements of Cartography, John Wiley.
2. G.M. Bennison : An Introduction to Geological Structures and Maps, Edward Arnold, London.
3. G.C. Dickinson : Maps and Air Photographs, Edward Arnold, London.
4. J.S. Keates : Cartographic Design and Production, Longman, London.
5. M.S. David : Patterns in Human Geography, David Charles, Penguin.
6. N.M. Downie and R.W. Heath : Basic Statistical Methods, Harper Row and Co.
7. S. Gregory : Statistical Methods and Geographer, Longman, London.
8. T.W. Birch : Maps - Topographical and Statistical, Oxford University Press.
9. J.P. Sharma: Prayogatmak Bhoogol,Rastogi & Co. Meerut.
10. J. Singh,V.K. Srivastava & B.P. Rao: Baumikiya Manchitron ki Ruprekha,Vasundhara Prakashan, Gorakhpur.
- 11.R.C. Tiwari and Sudhaker Tripathi: Abhinav Prayogatmak Bhoogol, Pryag Pustak Bhawan, Allahabad.
12. R.L.Singh: Prayogatmak Bhoogol ke Mool Tatwa,Tara Publication,Varanasi.
13. Russel A.Stulz: Learn Microsoft Word 6.0 for Windows in a day BPB Publications, New Delhi.

This course can be opted as an elective by the students of following subjects –

Suggested continuous E-Valuation Methods –

Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-

- Assignment/Practical/Projects – 05 Marks
- Internal Class Test – 10 Marks
- Attendance/Behavior – 05 Marks

Programme: B.A. (Honours/Honours with Research) in Geography	Year: B.A. 3rd Year	Semester: Vth
Pedagogy:		
Course Code: GEOIKS – 2303	Course/Paper Title:	Applied IKS-2: Geography
Course Outcomes: After completing this course, the students will be able to -		
CO1. Understanding of Indian Knowledge Systems: Students will develop a deep understanding of various Indian knowledge systems, including but not limited to Ayurveda, Vastu Shastra, Jyotisha, and indigenous ecological wisdom, and their historical, cultural, and philosophical foundations.		
CO2. Application of Traditional Wisdom: Students will be able to apply Indian knowledge systems to analyze and address contemporary geographical issues, demonstrating the relevance and applicability of these systems in modern geographic contexts.		
CO3. Critical Evaluation Skills: Through critical analysis of case studies and primary sources, students will develop the ability to evaluate the strengths and limitations of Indian knowledge systems in addressing geographical challenges, considering factors such as cultural context and environmental sustainability.		
CO4. Interdisciplinary Perspective: Students will recognize the interdisciplinary nature of Indian knowledge systems and their connections to geography, philosophy, science, and other fields, fostering a holistic approach to problem-solving and research.		
CO5. Ethical and Cultural Sensitivity: Students will gain awareness of ethical considerations and cultural sensitivities when working with Indian knowledge systems, promoting respectful engagement with diverse cultural perspectives and practices in the field of geography.		
Credit: 03	Paper (Core Compulsory / Elective): Core Compulsory	
Max. Marks : 20 + 80		
Total Number of Lectures (Lecture – Tutorials – Practical): 2 + 1 + 0 (30 + 15)		

Units:	Topics:	No. of Lectures
I	Indian Geographical Texts and Regional Analysis <ul style="list-style-type: none"> • Analysis of geographical descriptions in ancient texts • Interpreting regional variations and sacred landscapes 	06
II	Traditional Agricultural Practices and Land Use <ul style="list-style-type: none"> • Study of ancient agroecological practices and their sustainability • Indigenous soil fertility techniques and their contemporary relevance 	06
III	Traditional Weather Prediction and Climate Knowledge <ul style="list-style-type: none"> • Understanding traditional weather prediction methods • Integrating indigenous climate knowledge with modern meteorology 	06
IV	Indigenous Mapping and Resource Management <ul style="list-style-type: none"> • Case studies of successful integration of IKS in modern geographical practices • Community-based resource management informed by traditional wisdom 	06
V	Contemporary Challenges and Opportunities <ul style="list-style-type: none"> • Exploring challenges of applying IKS in modern contexts • Identifying opportunities for further research and practical applications 	06

Suggested Readings:

- "Indian Geography" by Majid Husain: This comprehensive textbook covers various aspects of Indian geography, including the application of traditional knowledge systems in understanding the country's geographical features.
- "Geographical Thought: A Contextual History of Ideas" by Daya Nath Tripathi: This book delves into the historical development of geographical thought in India, shedding light on how indigenous knowledge systems influenced the understanding of geography.
- "Traditional Ecological Knowledge and Natural Resource Management" edited by R. S. Rana and M. S. Rawat: This edited volume explores the role of traditional ecological knowledge in natural resource management, with a focus on Indian contexts.
- "Geographical Thought: An Introduction to Ideas in Human Geography" by Anoop Nayak and Alex Jeffrey: While not solely focused on India, this book provides valuable insights into how geographical thought has evolved globally and how Indian knowledge systems fit into the broader context of human geography.
- "Indian Knowledge Systems" by Shiv Nath Kak: This book discusses the various knowledge systems in India, including their relevance to geography and environmental studies. "The Oxford History of India" edited by Percival Spear

Suggested continuous E-Valuation Methods –

Continuous Internal Evaluation (CIL)

Total marks for each course shall be based on internal assessment (20%) and semester end examination (80%). The internal assessment of 20% shall be distributed as under:

- (vii) Internal Class Test – 10%.
- (viii) Assignment/Project/Practical – 5%
- (ix) Attendance/Behavior – 5%.

Major (Elective): Choose any one Course

Programme: B.A. (Honours/Honours with Research) in Geography		Year: B. A. 3rd Year	Semester: Vth
Pedagogy:			
Course Code: GEO-23106A		Course/Paper Title: Natural Resource Management	
Course Objective & Outcomes:			
Course Objectives:			
1. Awareness about resource availability, accessibility, utilization, its use and misuse.			
2. To know about spatial distribution of natural resources.			
3. To understand resource management and governance.			
By the end of the Course, the student will be able to:			
CO1. At the end the course student should learn importance of natural resources.			
CO2. Conservation methods and awareness about community participation.			
CO3. Assessment of role of national and international efforts to mitigate resource problems.			
CO4. To understand the sustainable development and conservation, planning, strategies of resources.			
CO5. To understand the community participation and governance in development of resources.			
Credit: 3+0+0		Paper (Core Compulsory / Elective): Elective	
Max. Marks : 80 + 20		Min. Passing Marks :	
Total Number of Lectures (Lecture – Tutorials – Practical): 45+0+0			
Units:	Topics:	No. of Lectures	
I	Concept of natural resources; classification of natural resources; Dynamic theory of resources; Problems of resource utilization; Development and resources; resource regionalization.	9	
II	Use and Misuse of resources--global and Indian scenario; Imbalance in resource distribution and utilization; Resource and economic development; Globalization and resources; Future prospects of soil, water mineral and forest resources.	9	
III	Resource appraisal; use of GIS and Remote Sensing in resource appraisal; resource depletion and emerging issues--desertification, deforestation less of bio diversity, energy crisis, water scarcity and conflicts.	9	
IV	Sustainable development and conservation of resources; concept of resource planning and resource conservation; Conservation strategies.	9	
V	Resource planning and economic development; Community participation and governance; Integrated resource development.	9	
Suggested Readings:			
Books Recommended			
1. J.L. Holechek et al: Natural resources: Eulogy Economics and Policy, Prentice Hall, New Jersey, 2000.			
2. R.W. Kates and I. Burton (Eds): Geography, Resources and Environment, Vol. II, University of Chicago Press, Chicago, 1986.			
3. D.J. Mc Laren and B.J. Skinnet (Eds): Resources and World Development, John Wiley & Sons, New York, 1986.			
4. M.D. Newson: Land, Water and Development: River Basin Systems and Management, Routledge London, 1991.			
5. S. Owen, PL Owens: Environment, Resources and Conservation, Cambridge University Press, New York, 1991.			
6. J. Rees: Natural Resources: Allocation, Economics and Policy Methwan, London, 1988.			
7. M. Redclift: Sustainable Development: Exploring the Contraction, Methuen London, 1987.			
8. I.G. Simmons: Earth, Air and Water Resources and Environment in Late 20th Century, Edward Arnold, 1991.			
9. Alan Thomas et al: Environmental Policies & NGO Influence, Rutledge, London, 1995.			
10. A.S. Mather and K. Chapman: Environmental Resources, Longman Scientific and Technical, London, 1995			
11. C.L. Harper: Environment and Society Human Perspectives on Environment Issues, Prentice Hall, New Jersey.			
12. I Burton and R.W. Kates (Ed): Readings in Resource Management and Conservation, 1965.			
13. S.W. Allen and J.W. Leonard: Conserving Natural Resources, McGraw Hill, New York.			
14. G.H. Smith (Ed.): Conservation of Natural Resources, John Wiley, New York.			
<u>Suggested continuous E-Valuation Methods –</u>			

Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-

Assignment/Practical/Projects – 05 Marks

Internal Class Test – 10 Marks

Attendance/Behavior – 05 Marks

Programme: B.A. (Honours/Honours with Research) in Geography		Year: B. A. 3rd Year	Semester: Vth
Pedagogy:			
Course Code: GEO-23106B	Course/Paper Title: Regional Study of Developed & Developing Countries: USA and China		
Course Objective & Outcomes:			
Course Objectives:			
1. To understand the concept of developed and developing nations.			
2. To understand the basic criteria of demarcating developed and developing nations.			
3. To understand the physical, social and economic characteristics of developed and developing nations.			
Course Outcome: By the end of the Course, the student will be able to:			
CO1. To understand the concept and criteria of regionalisation of developed and developing nations.			
CO2. To understand the socio-economic and cultural factors responsible for the development of USA and China.			
CO3. To understand the socio-economic and cultural differences between USA and China.			
CO4. To understand the physical and cultural resources of the USA.			
CO5. To understand the physical and cultural resources of the China.			
Credit: 3+0+0		Paper (Core Compulsory / Elective): Elective	
Max. Marks : 80 + 20		Min. Passing Marks :	
Total Number of Lectures (Lecture – Tutorials – Practical): 45+0+0			
Units:	Topics:		No. of Lectures
I	Concepts, bases and characteristics of developed and developing countries; Indicators and Levels of development: Developed, Developing, Under-developed, and Least-developed worlds.		9
II	USA: Physical resource base: landforms, climate, soils, vegetation, power and mineral resources.		9
III	USA: Cultural resource base: population, agriculture, industries, Agricultural and industrial regions of USA.		9
IV	China: Physical resource base: landforms, climate, soils, vegetation, power and mineral resources.		9
V	China: Cultural resource base: population, agriculture, industries, Agricultural and industrial regions of China.		9
Suggested Readings:			
Books Recommended			
1. di Blij, H. and Muller, O. (1993): Geography: Regions and Concepts. John Wiley and Sons, New York..			
2. Jackson, R. H. and Husman, L. E. (1991): World Regional Geography: Issues for Today. John Wiley and Sons, New York.			
3. Jones, P. and Bryan, P. (1954): North America: An Historical, Economic and Regional Geography, Methuen and Company. Ltd, London.			
4. Kolb, A. (1971): East Asia, China, Japan, Korea, Vietnam, Methuen, London.			
5. Rai, Gayatri (2007): Vishwa Ka Pradeshik Bhugol, Mishra Trading Corporation, Varanasi			
6. Sharma, P. R. (ed.) (1991): Perspectives on Third World Development. Rishi Publication, Varanasi.			
7. Stamp, L. D. (1976): Asia: A Regional and Economic Geography, Methuen, London.			

Suggested continuous E-Valuation Methods –

Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-

Assignment/Practical/Projects – 05 Marks

Internal Class Test – 10 Marks

Attendance/Behavior – 05 Marks

Other Courses:

Minor : To be Chosed from POOL B

Value Added Course : To be Chosed from POOL D

SEMESTER-VI

Programme: B.A. (Honours/Honours with Research) in Geography		Year: B. A. 3rd Year	Semester: VIth
Pedagogy:			
Course Code: GEO-23107		Course/Paper Title: Geography of India-II	
Course Objective & Outcomes:			
Course Objectives:			
1. Understand the demographic, social and cultural attributes such as migration, social relations and cultural identity.			
2. To impart the knowledge of human resources of India.			
3. To understand the economic development of India in terms of industrialisation and urbanisation.			
By the end of the course, the student will attain the following:			
CO1. Understand the spatial distribution of human resources of India.			
CO2. To understand the regional growth in terms of population, industrialisation and urban expansion.			
CO3. To become concerned about the environmental problems generating due to changing trends in population characteristics, industrialization and urbanization.			
CO4. To understand the characteristics of urban and planning regions of India.			
CO5. To understand the characteristics of Environment of India.			
Credit: 3+0+2		Paper (Core Compulsory / Elective): Compulsory	
Max. Marks : 80 + 20		Min. Passing Marks :	
Total Number of Lectures (Lecture – Tutorials – Practical): 45+0+60			
Units:	Topics:		No. of Lectures
I	Irrigation, agriculture - trends and problems, dry land agriculture, agricultural regions, green and white revolution and agro-climatic regions.		9
II	Population – distribution, growth, density, trends and problems; Road, rail and air transport; inland waterways, foreign trade.		9
III	Industrial growth and development; industrial localization with reference to iron and steel, cotton textile, sugar, cement and chemical, and paper industries, Industrial regions.		9
IV	Trends of Urbanization, urban problems, urban slums, urban policy, regional disparities in economic development, planning regions, multi-level planning bases of India federalism.		9
V	Environmental pollution in India, Geography of Uttar Pradesh.		9
Suggested Readings:			
Books Recommended			
1. R.L. Singh (ed.): India : A Regional Geography, NGSI, B.H.U., Varanasi 1971.			
2. T.C. Sharma and O. Coutinho: Economic and Commercial Geography of India.			
3. B.N. Sinha: Industrial Geography of India.			
4. O.H.K. Spate and A.T.A. Learmonth: India and Pakistan.			
5. D.N. Wadia : Geology of India.			
6. R.C. Tiwari, Geography of India, Prayag Pustak Bhawan, Allahabad.			
7 D.R. Khullar : India : A Comprehensive Geography, Kalyani Publishers, Ludhiana.			
8. India Reference Annual 2006, Publication Division, Govt. of India, New Delhi			
9. Ram Chandra Tiwari: Bharat Ka Bhoogol, Prayag Pustak Bhawan, Allahabad			
10. C.B. Matoria: Bharat ka Bhoogol, Sahitya Bhawan, Agra			
11. Alka Gautam: Bharat Ka Bhoogol Sharda Pustak Bhawan, Allahabad			
12. Bharat 2006: Publication Division, Bharat Sarkar, New Delhi			
Suggested continuous E-Valuation Methods –			
Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-			
Assignment/Practical/Projects – 05 Marks			
Internal Class Test – 10 Marks			
Attendance/Behavior – 05 Marks			

Programme: B.A. (Honours/Honours with Research) in Geography		Year: B. A. 3rd Year	Semester: VIth
Pedagogy:			
Course Code: GEO-23107L		Course/Paper Title:	Geography of India-II (Field Study: Field Trip, Report Writing & Viva – Voce)
Course Objective & Outcomes:			
Course Objectives:			
1. To orient the students towards identification and analysis of various geographical features and processes (both physical and human).			
2. To develop students' aptitude for acquiring basic skills of carrying out field work.			
By the end of the course, the student will attain the following:			
Course Outcomes:			
CO1. To learn to write a report through direct observation.			
CO2. To extract relevant information from secondary sources of data and analyse them while report writing.			
CO3. To make the report presentable and comprehensive through maps, tables and diagrams.			
Credit: 0+0+2		Paper (Core Compulsory / Elective): Compulsory	
Max. Marks : 80 + 20		Min. Passing Marks :	
Total Number of Lectures (Lecture – Tutorials – Practical): 0+0+60			
Units:	Topics:		No. of Lectures
I	Fieldwork: Meaning, types and objectives of field work;		6
II	Field work methods and techniques;		6
III	Importance of field work in geography		6
IV	Field work-based report writing.		6
V	Field Trip: Uttarakhand, Vindhyan Plateau, Thar Desert, Coastal area & PUNCHMARHI (MP)		6
Suggested Readings:			
Books Recommended			
1. R.L. Singh (ed.): India : A Regional Geography, NGSI, B.H.U., Varanasi 1971.			
2. T.C. Sharma and O. Coutinho: Economic and Commercial Geography of India.			
3. B.N. Sinha: Industrial Geography of India.			
4. O.H.K. Spate and A.T.A. Learmonth: India and Pakistan.			
5. D.N. Wadia : Geology of India.			
6. R.C. Tiwari, Geography of India, Prayag Pustak Bhawan, Allahabad.			
7 D.R. Khullar : India : A Comprehensive Geography, Kalyani Publishers, Ludhiana.			
8. India Reference Annual 2006, Publication Division, Govt. of India, New Delhi			
9. Ram Chandra Tiwari: Bharat Ka Bhoogol, Prayag Pustak Bhawan, Allahabad			
10. C.B. MAMORIA: Bharat ka Bhoogol, Sahitya Bhawan, Agra			
11. Alka Gautam: Bharat Ka Bhoogol Sharda Pustak Bhawan, Allahabad			
12. Bharat 2006: Publication Division, Bharat Sarkar, New Delhi			
Suggested continuous E-Valuation Methods –			
Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-			
Assignment/Practical/Projects – 05 Marks			
Internal Class Test – 10 Marks			
Attendance/Behavior – 05 Marks			

Major (Elective) : Choose any one Course

Programme: B.A. (Honours/Honours with Research) in Geography		Year: B. A. 3rd Year	Semester: VIth
Pedagogy:			
Course Code: GEO-23108A		Course/Paper Title: Environmental Geography	
Course Objective & Outcomes: To understand the concept of environment and man environment relationship. To understand the man's role in changing the environmental quality and its consequences. By the end of the Course, the student will attain the following:			
CO1. To understand the composition and types of environment. CO2. To understand the concept of ecosystem, energy flow and functioning of ecosystem. CO3. To understand the causes and effect of environmental degradation. CO4. To know the environmental legislations and laws and to understand the concept of environmental management to check environmental degradation. CO5. The students will be able to understand environmental policy and planning.			
Credit: 3+0+0		Paper (Core Compulsory / Elective): Elective	
Max. Marks : 80 + 20		Min. Passing Marks :	
Total Number of Lectures (Lecture – Tutorials – Practical): 45+0+0			
Units:	Topics:		No. of Lectures
I	Meaning and Scope of environmental geography; basic principles of environmental geography; composition and types of environment; ecological principles; man–environment relationship.		9
II	Ecosystem: concept and components; trophic levels; food chains and food webs; energy flow in the ecosystem; circulation of matter in the ecosystem, geo-biochemical cycle, ecosystem productivity, ecosystem stability.		9
III	Environmental degradation; Extreme events, hazards and disasters (earthquake, volcanoes, cyclones, floods); Environmental pollution (air, water, solid waste, soil and noise pollution)		9
IV	Environmental pollution in India; Environmental Problems: global warming, ozone depletion, land degradation and reduction in biodiversity.		9
V	Environmental management: concept and approaches; environmental dimension, in planning sustainable development; environmental consciousness, environmental policy; environmental legislation; environmental impact assessment; disaster management.		9
Suggested Readings:			
Books Recommended			
1. Association American Geographers: Perspectives on Environment, Washington D.C.			
2. A.N. Strahler and A.H. Strahler: Geography and Man's Environment, John Wiley and Sons, New York.			
3. C.C. Park: Ecology and Environmental Management, Butter worths, London.			
4. D.B. Botkin and E.A. Keller: Environmental Studies, C.E. Merrill Pub. Co. Columbus.			
5. J.B. Easts and L.W. Senger: Remote Sensing Techniques for Environmental Analysis, Hamilton Pub. Co. New York.			
6. J.B. Hobbs: Applied Climatology, Butterworths, London.			
7. L.R. Singh et al: Environmental Management, Allahabad Geographical Society, Allahabad.			
8. National Academy of Sciences: Understanding Climatic Changes, Washington D.C.			
9. P.A. Furley and W.W. Neway: Man and the Biosphere, Butterworths, London.			
10. R. Arvil: Man and Environment, Pnguin.			
11. R.J. Bennet and R.J. Chorley: Environmental System- Philosophy, Analysis and Control, Methuen, London.			
12. Savindra Singh: Environmental Geography, Prayag Pustak Bhawan,Allahabad			
13. T.R. Detwler: Man's Impact on the Environment, Mc Graw Hill, New York.			
14. T.R. Detwyler and M.G. Marcus:Urbanization and Environment, Duxburg Press, California.			

15. Savindra Singh: Paryavaran Bhoogol, Prayag Pustak Bhawan, Allahabad.
 16. W.M. Adans: Green Development: Environment and Sustainability in the Third World, Routledge, London, 2001.
 17. E.P. Odum: Fundamental of Ecology, W.B. Saunders Co. Philadelphia, 1971.
 18. A.S. Mather and K. Chapman: Environmental Resources, Longman Group Ltd. U.K., 1995.
 19. A. Goudie: The Nature of the Environment, Oxford, Basil Black Well, 1989.
 20. K. Smith: Environmental Hazards: Assessing Risk and Reducing Disaster, Routledge London, 1996.

Suggested continuous E-Valuation Methods –

Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-

Assignment/Practical/Projects –	05 Marks
Internal Class Test –	10 Marks
Attendance/Behavior –	05 Marks

Or

Programme: B.A. (Honours/Honours with Research) in Economics		Year: B. A. 4th Year	Semester: VIIth
Pedagogy:			
Course Code: GEO-23108B		Course/Paper Title: Geography of Health	
Course Objective & Outcomes:			
Objective:			
<ol style="list-style-type: none"> 1. This course intends to reorient the students towards interdisciplinary perspectives on population health issues at different geographical scales. 2. It will acquaint the candidate to appreciate the role of spatial perspectives towards showcasing drivers of population health transition and major approaches used to explain it. 3. Students shall be able to understand the interplay of social environment, global environmental changes and its association with population health. 			
By the end of the Course, the student will be able to:			
CO1. Students would be acquainted with the basic concepts of population health from geographical perspectives.			
CO2. Students would get clear understanding about the process of population health transition and its major drivers. In addition, students should recognize the mechanism of how social and economic environment shapes population health.			
CO3. Further, the linkages between global environmental changes and population health should be well understood.			
CO4. To be able to understand aetiology and transmission of major diseases like cholera, malaria, tuberculosis, hepatitis, leprosy, cardiovascular, cancer, AIDS and STDS.			
CO5. To be able to understand healthcare Planning like (i) International level-WHO, UNICEF, Red Cross and (ii) National Level- Government and NGOS.			
Credit: 3+0+0		Paper (Core Compulsory / Elective): Elective	
Max. Marks : 90 + 0 + 0		Min. Passing Marks :	
Total Number of Lectures (Lecture – Tutorials – Practical): 45+0+0			
Units:	Topics:		No. of Lectures
I	Nature, Scope and development of Geography of Health; Distinction between Geography of Health and medical science; Geographical factor affecting human health and diseases –Physical factors (relief, climate, soil and vegetation)		9
II	Social factors (population density, literacy, social customs and poverty), economic factors (food and nutrition, occupation, standard of living), environmental factors (urbanization and congestion, water, air, and noise pollution and solid waste).		9

III	Classification of diseases: genetic, communicable and non-communicable; occupational and deficiency diseases; WHO classification of diseases; pattern of world distribution of major diseases-malaria, tuberculosis, cardiovascular, cancer and AIDS	9
IV	Ecology, aetiology and transmission of major diseases: cholera, malaria, tuberculosis, hepatitis, leprosy, cardiovascular, cancer, AIDS and STDS; Spread of diseases and their causes; Deficiency, disorders and problems of mal nutrition in India.	9
V	Healthcare Planning: (i) International level-WHO, UNICEF, Red Cross (ii) National Level- Government and NGOS; Health care planning and policies: availability, accessibility and utilization of health care services; Primary health care; family welfare, immunization, national disease eradication and health for all programme; Health care policy in India	9

Suggested Readings:

1. While not solely focused on geography, this book provides a global perspective on health issues, including the geographical dimensions of healthcare provision.
2. "Geographies of Infectious Diseases" edited by Mark W. Rosenberg and Oran R. Young: This collection of essays explores the spatial dimensions of infectious diseases, addressing topics such as disease diffusion, social determinants of health, and global health governance.
3. "Public Health, Disease and Development in Africa" edited by Ezekiel Kalipeni and Juliet Iwelunmor:
Focusing on the African continent, this book examines the complex relationship between geography, disease, and public health, with insights into health disparities and development.
4. "Geography, Health, and Sustainability: Gender Matters in South Sudan" by Lucy Gilson: This book explores the intersection of gender, geography, and health in the context of South Sudan, providing a case study approach to understanding health disparities.
5. "The Geography of Health Inequalities in the Developed World: Views from Britain and Australia" by Anthony C. Gatrell and Susan J. Elliott:
Examining health inequalities in developed countries, this book offers insights into the role of geography in shaping healthcare access and outcomes.
6. "Geographies of Placemaking: A Praxeological Approach to Human and Non-Human Agency in Health and Wellness" by Rob Wilton:
This book explores the concept of placemaking and its impact on health and wellness, emphasizing the role of the environment in shaping health behaviors.
7. "Health and Place: A Critical Introduction" by Anthony C. Gatrell and Susan J. Elliott:
This introductory text provides an overview of the key concepts and theories in health geography, helping students understand the spatial dimensions of health.

Suggested continuous E-Valuation Methods –

Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-

Assignment/Practical/Projects –	05 Marks
Internal Class Test –	10 Marks
Attendance/Behavior –	05 Marks

Other Courses to Opt:

Minor : To be Chosed from POOL B

Value Added Course : To be Chosed from POOL D

Exit Option: Bachelor' Degree (Programme duration: Three years or six semesters) .

SEMESTER-VII

Programme: B.A. (Honours/Honours with Research) in Geography	Year : B. A. Fourth year	Semester: VII
Pedagogy:		
Course Code : GEO-23109	Course/Paper Title : Urban & Regional Planning	
<p>Course Objective & Outcome-</p> <p>Course Objectives:</p> <ol style="list-style-type: none"> 1. The students will be exposed to basic concepts of urban and regional planning. 2. The students will be conscious of pioneering thinkers in urban planning. 3. The students will be aware of the background theory of regional planning and its processes. <p>After completing this course, the students will be able to-</p> <p>CO1. The students will learn about basic principles of urban and regional planning.</p> <p>CO2. The students will know about pioneering thinkers in the field of urban planning.</p> <p>CO3. The students will study about the different theoretical background and structure of the regional planning process.</p> <p>CO4. The students will be able to understand regional development strategies, urban theory and regional planning strategies for backward areas like drought prone area, hill area, tribal area and rural area.</p> <p>CO5. The students will be able to understand role of urban centres in regional planning and strategies for urban planning.</p>		
Credits: 4+0+2	Paper(core compulsory/Elective): Compulsory	
Max. Marks: 20+80	Min. Marks:	
Total Number of Lecture(Lecture-Tutorials-Practical); 60+0+60		
Units:	Topics:	No. of Lecture
I	Concept of planning; Types of planning; Concept of regional planning; Types of regional planning; City as unit of regional planning; Approaches to regional planning; Historical development of regional planning- -developed world and developing world.	12
II	Methodology and Techniques of Regional Planning; Analytical techniques and procedural techniques; Principles of regionalization; Indications of development and data sources.	12
III	Measures of regional development and regional disparities; Planning processes- sectoral and spatial planning; short medium and perspective planning; Multi regional and multilevel planning.	12
IV	Regional development strategies: Export base theory, convergence theory, Growth poles and growth centres in regional development; Industrial dispersal and backward area development; Identification of planning regions, Regional planning strategies for backward areas—drought prone area hill area, tribal area and Rural area.	12
V	Role of urban centres in regional planning; urban scenario in India; city regions and their problems; Problems of poorly urbanized areas, strategies for urban planning; metropolitan planning, preparation of master plans, city region planning;	12
<p>Suggested Readings:</p> <p>Books Recommended</p> <ol style="list-style-type: none"> 1. R. Abler et al: Spatial Organisation: The Geographers View of the World, Prentice Hall, Englewood Cliffs, NJ. 2. L.S. Bhat: Regional Planning in India, Statistical Publishing Society, Calcutta, 1973. 3. J. Friedmann and W. Alonso: Regional Development and Planning-A Reader, MIT Press, Cambridge, Mass 1967. 		

4. Arthur Glikson: Regional Planning and Development, Netherland, Universities Foundation for International Co-operation, Londlon, 1955.
5. E.A.J. Johnson: The Organisation pf Space in Developing Countries, Harward University Press, Cambridge, 1970.
6. A.R. Kuhlinski (Ed): Growth Poles and Growth Centres in Regional Planning, Mouton, The Hague, 1972.
7. R.P. Misra: et al: Regional Planning: Concepts, Techniques and Policies, University of Mysore, Mysore, 1969.
8. R.P. Misra et al: Multi Level Planning, Heritage Publishers, Delhi, 1930.
9. Peter Hall: Urban and Regional Planning, Penguin Books Ins. New York.
10. J.G.M. Hill Shorts: Regional Planning, University Press, Rotterdam.
11. John Glasson: Regional Planning, Hutchrson, London.
12. R.P. Misra: Development Issues of our time, Concept Pub. Co. New Delhi.
13. J. Alden and R. Morgan: Regional Planning: A Comprehensive View, Leonard Hill Books, Beds 1974.
14. J. Glassen: An Introduction to Regional Planning, Hutchron Educational, London.
15. P. Hall: Cities of Tomorrow, Updated Edition, Blackwell Publishers Ltd. Oxford 1996.

Suggested continuous E-Valuation methods-

Continious Internal E-Valuation shall be on assignment and class text, The marks shall be as fallows-
 Assignment/Practical/Project - 5 marks
 Internal Class Text – 10 Marks
 Attendance / Behaviour - 5 marks

Programme: B.A. (Honours/Honours with Research) in Geography		Year : B. A. Fourth year	Semester: VII
Pedagogy:			
Course Code : GEO-23109L		Course/Paper Title : GIS, Surveying and Computer Assisted Cartography	
Course Objective & Outcome- Course Objectives: <ol style="list-style-type: none"> 1. To develop an understanding of remote sensing, GIS and GPS technologies and their potential applications. 2. To develop basic skills to interpret remote sensing images for various applications in geography. 3. To develop basic skills to use GIS for various applications in geography. 			
After completing this course, the students will be able to- CO1. Overall understanding of potential of Remote Sensing, GIS and GPS. CO2. Understanding of image interpretation and relating it with field observations. CO3. Understanding of GIS analysis workflow and integrated applications in various domains of Geography. CO4. The students will be able to understand application of GIS technology in utilities management and other fields. CO5. The students will be able to understand different type of field surveying with different type of instruments.			
Credits: 0+0+2		Paper(core compulsory/Elective): Compulsory	
Max. Marks: 20+80		Min. Marks:	
Total Number of Lecture(Lecture-Tutorials-Practical); 0+0+60			
Units:	Topics:		No. of Lecture
I	FUNDAMENTALS OF GIS: Concepts and definitions; Evolution and development of GIS; Computer environment for GIS; Elements of spatial data and their graphical representation- Thematic maps; Scales and symbolization; Map projections; spatial data models and data structure in GIS environment modelling surfaces, networks' terrain' relief and time -virtual maps.		12

II	GIS Technology: Co-ordinate system-basic principles of cartography and computer assisted cartography for GIS; Remote Sensing data as a data source for GIS; Integration of GIS and Remote Sensing-GPS and GIS technology; Creation of location and attribute data bases-Vector and raster formats-digitizing and scanning-data editing and validation-decoding.	12
III	Data analysis and manipulation; measurement in GIS-classification, overlay analysis and intergradation of data-buffering- shortest path-interpolation-analysis of surfaces and networks; Modeling physical and environmental processes and human activities; visualization and mapping-forms of output: map, tables, report Cartographic principles and techniques of graphic representation-inbuilt tools and facilities in a GIS package.	12
IV	GIS as decision support system; Application of GIS technology in utilities management and other fields-GIS in land information system, urban management, environmental of management and emergency response system; Adoption of GIS technology in India; GIS project designing and implementation, Future prospects of GIS.	12
V	(a) Plane Table Surveying –triangulation, traversing and resection. (b) Use of Telescopic Alidade in Plane Table Surveying- measurement of distances and mapping. (c) Levelling- Differential and profile levelling (d) Use of Indian Clinometers- Determination of spot heights; Interpolation of Contours. (e) Use of Theodolite – Triangulation and Traversing.	12

Suggested Readings:

Books Recommended

1. S. Aronoff: Geographic Information Systems: A Management Perspective, D.D.L. Publication, Ottawa, 1989.
2. P.A. Burrough: Principles of Geographic Information Systems for Land Resource Assessment, Oxford University Press, New York, 1986.
3. D.R. Fraser, Taylor: Geographic Information Systems, Pergaman Press, Oxford, 1991.
4. D.J. Peuquet and D.F.Marble: Introductory Readings in Geographic Information Systems, Taylor & Francis, Washington, 1990.
5. J. Star and J Estes: Geographic Information Systems: An Introduction, Prentice Hall, England Cliff. New Jersey, 1994.
6. Marks S. Monmonier: Computer- Assisted Cartography, Prentice Hall, Englewood Cliff, New Jersey, 1982.
7. I. Heywood et al: An Introduction to Geographical Systems, Pearson Education, Ltd. New Delhi, 2002.
8. Christopher B. Jones: Geographical Information Systems and Computer Cartography, Addison Wealey Longman Ltd. England, 1997.
9. David Martin: Geographical Information Systems: Socio-Economic Application, IInd Edition, Routledge London & New York, 1996.
10. William E. Huxhold: An Introduction to Urban Geographic Information Systems, Oxford University Press, New York.
11. John Pickles (Ed) 1995: Ground Truth: The Social Implications of Geographical Information Systems, the Guilford Press, New York, 1995.

Suggested continuous E-Valuation methods-

Continious Internal E-Valuation shall be on assignment and class text, The marks shall be as fallows-

Assignment/Practical/Project - 5 marks

Internal Class Text – 10 Marks

Attendance / Behaviour - 5 marks

Programme: B.A. (Honours/Honours with Research) in Geography	Year: B. A. 4 th Year	Semester: VII th
Pedagogy:		

Course Code: GEO-23110A		Course/Paper Title: Research Methodology
Course Objective & Outcomes:		
Course Objectives:		
1. To understand the concept of spatial data.		
2. To learn the techniques of spatial data analysis.		
1. This course attempts to introduce the students to the basic knowledge related to geographical field research design.		
2. The course examines the questions related to data collection, methods and its analysis.		
3. It also critically evaluates the dissertation based on field survey.		
By the end of the Course, the student:		
CO1. To know about different types of spatial data and the methods of data collection and compilation.		
CO2. To perform diagrammatic and mathematical representation of spatial data.		
CO3. To know about sampling frame and procedure.		
CO4. Perform hypothesis testing.		
1. The students will be able to understand basic concepts of field research methods and research design in geography.		
2. The students will be able to do field work through practical experience and get skills of data collection methods and processing and analysis of obtained data.		
3. The students will be able to write dissertation based on field work on given topic.		
4. The students will be able to understand qualitative research design.		
CO5. The students will be able to understand data analysis, data classification and tabulation.		
Credit: 4+0+0		Paper (Core Compulsory / Elective): Compulsory
Max. Marks : 80 + 20		Min. Passing Marks :
Total Number of Lectures (Lecture – Tutorials – Practical): 60 + 0 + 0		
Units:	Topics:	No. of Lectures
I	Introduction to research in Geography: Concept and significance of research in geography; Philosophy and methods; Naturalism and anti-naturalism; realism and idealism.	12
II	Scientific Research; Inductive and deductive approaches; Research design; Formulation of research problem.	12
III	Introduction of research problems, objectives and research methodology. Critical review of the thematic literatures.	12
IV	Data collection and generation (indices, indicators); Field survey (sampling, design, representation, selection, overview); Analysis and interpretation of data and maps.	12
V	Hypothesis testing- Chi-square test, binomial test, t test, Mann-Whitney U test, Analysis of variance; Multivariate Analysis.	12
Suggested Readings:		
Books Recommended		
<ul style="list-style-type: none"> • Ahuja, Ram 2001. Research Methods. Rawat Publications, Jaipur and New Delhi. • Bharati, S.K., 2020. <i>Geographic Information System and Remote Sensing Technique</i> (In Hindi), Vikas Publishing House, New Delhi. • Denzin, N. K. and Lincoln, Y.S. (eds.) 2000. Handbook of Qualitative Research. Sage Publ., Thousand Oaks CA. • Hay, Iain (ed.) 2005. Qualitative Research Methods in Human Geography. Oxford University Press, Melbourne. 2nd Ed. • Kitchen, Rob and Tate, Nicholas J. 2009. Conducting Research into Human Geography: Theory, Methodology & Practice. Prentice Hall-Pearson, Harlow U.K. 2nd Ed. • Knight, Peter G. and Parsons, Tony 2003. How to do your Essays Exams & Coursework in Geography and Related Disciplines. Nelson Thornes, Cheltenham U.K. • Limb, Mclanie 2001. Qualitative Methodologies for Geographers. Issue and Debates. Arnold, London. • Lofland, J. and Lofland, L.H. 1995. Analysing Social Setting. A Guide to Qualitative Observation and Analysis. Wadsworth, Belmont, CA. • Lousenbury, J. F. and Aldrich, F.T. 1986. Introduction to Geographic Field Methods and Techniques. Charles E. Merrill Publishing. Company, Columbus. 		

- Mikkelsen, B. 1995. *Methods for Development Work and Research: A Guide for Practitioners*. Sage, London.
- Mukherjee, Neela 2002. *Participatory Learning and Action: with 100 Field Methods*. Concept Publs. Co., New Delhi.
- O’Leary, Zina 2004. *The Essential Guide to Doing Research*. The Vistaar Publ., New Delhi.
- Parsons, Tony and Knight, Peter G. 2005. *How to do your Dissertation in Geography and Related Disciplines*. Routledge, London. 2nd Ed.
- Sharma, P. R. et. al. (ed.) 2011. *Research Methodology Concept and Studies*, RK BOOKS 4215/, Ansari Road, Daryaganj, New Delhi, pp. 29-42.

This course can be opted by the students of pursuing Honours with Research in the Discipline.

Suggested continuous E-Valuation Methods –

Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-

Assignment/Practical/Projects –	05 Marks
Internal Class Test –	10 Marks
Attendance/Behavior –	05 Marks

Or

Programme: B.A. (Honours/Honours with Research) in Geography		Year: B. A. 4 th Year	Semester: VII th
Pedagogy:			
Course Code: GEO-23110B		Course/Paper Title: History of Geographical Thought	
Course Objective & Outcomes: Course Objectives: 1.Understanding historical evolution of geographic thought 2.Detailed analysis of different paradigms in geography 3.Evaluating the contemporary trends in geographical studies. By the end of the Course, the student:			
CO1. In depth understanding about the evolution of geographical thought CO2. Detailed knowledge about the paradigms and debates in the geographical studies. CO3. Understanding of recent traditions in geography. CO4. To understand the development of geography in the modern classical period and different school of geography CO5. To understand the dichotomies in geography and different approaches to the study of geography.			
Credit: 4+0+0		Paper (Core Compulsory / Elective): Compulsory	
Max. Marks : 80 + 20		Min. Passing Marks :	
Total Number of Lectures (Lecture – Tutorials – Practical): 60 + 0 + 0			
Units:	Topics:		No. of Lectures
I	Meaning and scope of geography; Changing philosophy of geography; Geography as an interdisciplinary science; Geography as social science; Geography as a synthesizing science; Explanations in Geography		12
II	Development of Geography in the ancient classical period; Contributions of Greek, Roman, Indian and Chinese scholars.		12
III	Geography in the dark ages –contributions of Arab geographers; Period of renaissance age of explorations and discoveries and their impacts.		12
IV	Development of Geography in the modern classical period; Rise of philosophical and scientific analysis in geography; Contributions of German, French, British, American and Russian schools of thought.		12
V	Dichotomies in geography: physical vs human, systematic vs regional etc. Different approaches to the study of geography – areal differentiation, landscape, ecological and locational. Development of geography in the first half of the 20th century; fundamental concepts in physical, human, economic and settlement geography.		12
Suggested Readings:			
Books Recommended 1. Minshull: The Changing Nature of Geography 2. Dickinson: The Makers of Modern Geography. 3. Chisholm: Human Geography-Evolution and Revolution 4. D. Harvey: Explanations in Geography, Edward Arnold. 5. East and Wooldridge: The Spirit and Purpose of Geography. 6. P. Haggett: Geography: A Modern Synthesis 7. M. Hussain: Evolution of Geographical Thought, Rawat Publication, Jaipur. 8. R.D. Dixit: Geographical Thought, Prentice Hall of India Pvt .Ltd. New Delhi. 9. R. Hartshorne: Perspective on the Nature of Geography, Rawat Publication, Jaipur. 10. R.J. Chorley & P. Haggett: Models in Geography 11. Majid Hussain: Bhaugolik Vichardharaon ka Itihas, Rawat Pub., Jaipur 12. R.D. Dixit: Bhaugolik Vichardhara, Prentice Hall of India, Pvt .Ltd. New Delhi.			
This course can be opted by the students of pursuing Honours in the Discipline.			
Suggested continuous E-Valuation Methods –			

Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-

Assignment/Practical/Projects – 05 Marks

Internal Class Test – 10 Marks

Attendance/Behavior – 05 Marks

Major (Elective): Choose Any Two Courses

Programme: B.A. (Honours/Honours with Research) in Economics		Year: B. A. 4 th Year	Semester: VII th
Pedagogy:			
Course Code: GEO-23111A		Course/Paper Title: Climatology	
Course Objective & Outcomes:			
Course Objectives:			
1. To understand various dimensions of climate and weather.			
2. Detailed analysis of global atmospheric pressure and wind system.			
3. To understand the causes of global climate change.			
By the end of the Course, the student will be able to:			
CO1. Understand the elements of weather and climate, different atmospheric phenomena and climate change.			
CO2. Learn to associate climate with other environmental and human issues.			
CO3. To analyze the dynamics of the Earth's atmosphere and global climate and assess the role of man in global climate change.			
CO4. To understand the characteristics, classification and distribution of Cyclones.			
CO5. To understand the significance of earthquakes and tsunamis.			
Credit: 4+0+0		Paper (Core Compulsory / Elective): Elective	
Max. Marks : 80 + 20		Min. Passing Marks :	
Total Number of Lectures (Lecture – Tutorials – Practical): 60 + 0 + 0			
Units:	Topics:		No. of Lectures
I	Meaning and scope of climatology; Atmosphere: Composition and structure; Insolation: determinants and distribution; Temperature: Controlling factors and Distribution; Processes of heating and cooling of the atmosphere.		12
II	Heat budget of earth and atmosphere; Temperature change; Air stability and its importance; Laws of Horizontal Motion and general Atmospheric Circulation, Monsoon, Jet Stream and their significance with reference to India		12
III	Precipitation: Theories of Precipitation Formation, forms and types; Air Masses: classification and modification; Fronts: source regions, types and associated weather.		12
IV	Cyclones: tropical and temperate; hurricanes; tornadoes; thunderstorm; Climatic classification: Köppen and Thornthwaite		12
V	Earthquakes and Tsunamis; Global Warming: causes and consequences; Climatic change: evidences and theories.		12
Suggested Readings:			
Books Recommended			
1. Barry, R.G. and Carleton, M. (2001): Synoptic and Dynamic Climatology, Routledge, London.			
2. Chorley, R.J. (2001): Atmosphere, Weather and Climate. Methuen, London.			
3. Critchfield, H.J. (2002): General Climatology. Prentice-Hall of India, New Delhi..			
4. Finch, J. C. and Trewartha, G. T.: Elements of Weather and Climate. Prentice-Hall, London.			
5. Kendrew, W.C. (1998): Climatology. Edward Arnold, London. 5 th edition.			
6. Lal, D.S.(1986): Climatology. Chaitanya Publications, Allahabad.			
7. Oliver, J.E. and Hidore, J.J. (2003): Climatology: An Atmospheric Science, Pearson Education Private Ltd, Patparganj, Delhi.			
8. Robinson, P. J. and Henderson, S. (1999): Contemporary Climatology, 2nd edition, Pearson Education Ltd., Harlow, UK.			
9. Singh, M.B. (1998): Jalvayu Avam Samudra Vigyan. Tara Book Agency, Varanasi.			

10. Singh, M.B. (1999): Jalvayu Avam Jal Vigyan. Tara Book Agency, Varanasi. 11. Singh, S. (2005): Climatology. Prayag Pustak Bhawan, Allahabad.
12. Singh, S. (2006): Jalvayu Vigyan. Prayag Pustak Bhawan, Allahabad

Suggested continuous E-Valuation Methods –

Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-

Assignment/Practical/Projects –	05 Marks
Internal Class Test –	10 Marks
Attendance/Behavior –	05 Marks

Or

Programme: B.A. (Honours/Honours with Research) in Economics	Year: B. A. 4 th Year	Semester: VII th
Pedagogy:		
Course Code: GEO-23111B	Course/Paper Title: Population Geography	
Course Objective & Outcomes:		
Course Objectives:		
1. It introduces the basic concepts of population Geography to the students.		
2. An understanding of the importance and need of demographic data.		
3. Spatial understanding of population dynamics.		
By the end of the Course, the student will be able to:		
CO1. This paper would bring an understanding of Population Geography along with relevance of demographic data.		
CO2. The students would get an understanding of distribution and trends of population growth in the developed and less developed countries, along with population theories.		
CO3. The students would get an understanding of the dynamics of population.		
CO4. An understanding of the implications of population composition in different regions of the world.		
CO5. An appreciation of the contemporary issues in the field of population studies		
Credit: 4+0+0	Paper (Core Compulsory / Elective): Elective	
Max. Marks : 80 + 20	Min. Passing Marks :	
Total Number of Lectures (Lecture – Tutorials – Practical): 60 + 0 + 0		
Units:	Topics:	No. of Lectures
I	Nature and scope of population geography; Sources and types of population data: census, sample survey and vital registration system.	12
II	World population: growth, causes and consequences; Factors affecting population distribution; Migration: types and determinants; Urbanization: trends and pattern.	12
III	Population dynamics: fertility and mortality, age and sex structure; Occupational structure; Demographic transition theory; human resource development: indicators and patterns.	12
IV	Population problems - over population, under population; optimum population; population planning and control -- theories of Malthus, Marx and Rostov.	12
V	INDIA:- Population growth; Distribution of population; Density types; Population problems; Population Policy; measures of population control in India.	12
Suggested Readings:		
Books Recommended		
1. Chandna, R. C. (2006): Geography of Population. Kalyani Publishers, New Delhi.		
2. Clarke, J.I. (1972): Population Geography. Pergamon Press, Oxford.		

3. Demko, G.J., Rose, H.M., and Schnell, G.A. (1970): Population Geography: A Reader, McGraw Hill, New York.
4. Dube, K.K. and Singh, M.B.(1994): Jansankhya Bhoogol, Rawat Publications, Jaipur.
5. Garnier, B.J. (1993): Geography of Population. 3rd edition. Longman, London.
6. Jones, H. R. (1981): A Population Geography. Harper and Row, New York.
7. Peters, G. L. and Larkin, R.P. (1983): Population Geography: Problems, Concepts and Prospects. Kendall/Hunt, Dubuque, IA.
8. Trewartha, G.T. (1985): A Geography of Population: World Patterns. John Wiley and Sons, New York.
9. Zelinsky, W. (1966): A Prologue to Population Geography. Prentice Hall, New Jersey.

Suggested continuous E-Valuation Methods –

Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-

Assignment/Practical/Projects –	05 Marks
Internal Class Test –	10 Marks
Attendance/Behavior –	05 Marks

Or

Programme: B.A. (Honours/Honours with Research) in Geography		Year: B. A. 4 th Year	Semester: VII th
Pedagogy:			
Course Code: GEO-23111C		Course/Paper Title: Economic Geography	
Course Objective & Outcomes:			
Course Objectives:			
1. To understand the concept of resources and spatial distribution of economic activities in the world.			
2. To analyse the factors influencing location of economic activities with the help of relevant models.			
3. To describe the influence of cultural and social processes on economic activities.			
Course Outcome: By the end of the Course, the student will be able to:			
CO1. To distinguish different types of economic activities and their utilities.			
CO2. To understand the role of globalisation on spatial distribution of economic activities.			
CO3. To understand the relevance of the theoretical models explaining location of economic activities.			
CO4. To understand the relevance of major World transportation.			
CO5. To understand the cultural and social processes of the world.			
Credit: 4+0+0		Paper (Core Compulsory / Elective): Elective	
Max. Marks : 80 + 20		Min. Passing Marks :	
Total Number of Lectures (Lecture – Tutorials – Practical): 60 + 0 + 0			
Units:	Topics:		No. of Lectures
I	Meaning and approaches to economic geography; Main concepts of economic geography; Resource: concept and classification; Resource conservation.		12
II	Natural resources: soil, forest and water; Mineral resources: iron ore and bauxite; Major industries: iron and steel, and cotton textiles.		12
III	Power resources: coal and petroleum; Principal crops: wheat, rice and cotton.		12
IV	Agricultural regions of the world (Derwent Whittlesey); Theory of agricultural location (Von Thunen); Theory of industrial location (Weber);		12
V	World transportation: major trans-continental railways, and sea routes; WTO and International trade: patterns and trends; Major trade blocs: EEC, ASEAN; Effect of globalization on developing countries.		12
Suggested Readings:			
Books Recommended			
1. Alexander, J. W. (1988): Economic Geography. Prentice-Hall, New Delhi,.			

2. Bryson, J., Henry, N., Keeble, D. and Martin, R. (eds.) (1999): The Economic Geography Reader: Producing and Consuming Global Capitalism. John Wiley and Sons, Inc, New York.
3. Clark, G. L., Gertler, M. S. and Feldman, M. P. (eds.) (2000): The Oxford Handbook of Economic Geography. Oxford University Press, USA.
4. Coe, N. (2007): Economic Geography: A Contemporary Introduction. Blackwell Publishers, Inc., Massachusetts.
5. Gautam, A. (2006): Aarthik Bhugol Ke Mool Tattava, Sharda Pustak Bhawan, Allahabad.
6. Guha, J. S. and Chattoraj, P.R. (2002): A New Approach to Economic Geography: A Study of Resources. The World Press Private Limited, Kolkata.
7. Hanink, D. M. (1997): Principles and Applications of Economic Geography: Economy, Policy, Environment. John Wiley and Sons, Inc, New York.
8. Hartshorne, T. A. and Alexander, J. W. (1988): Economic Geography (3rd revised edition) Englewood Cliff, New Jersey, Prentice Hall
9. Hudson, R. (2005): Economic Geographies: Circuits, Flows and Spaces. Sage Publications, London.
10. Knowles, R, Wareing, J. (2000): Economic and Social Geography Made Simple, Rupa and Company, New Delhi.
11. Sokal, Martin 2011. Economic Geographics of Globalisation: A short Introduction. Cheltenham, UK: Edward Elgar.

Suggested continuous E-Valuation Methods –

Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-

Assignment/Practical/Projects – 05 Marks

Internal Class Test – 10 Marks

Attendance/Behavior – 05 Marks

MINOR ELECTIVE : To be chosen by Students of Other Discipline

Programme: B.A. (Honours/Honours with Research) in Geography		Year: B. A. 4 th Year	Semester: VII th
Pedagogy:			
Course Code: POOL B		Course/Paper Title: GIS & Its Applications	
Course Objective & Outcomes:			
Course Objectives:			
1. To make students acquainted with standard GIS techniques through hands-on practical exercises			
2. To enable students to use GIS as a decision support system for different geographical applications			
3. To enable students for preparation of thematic maps using GIS tools.			
By the end of the Course, the student will be able to:			
CO1. Understanding of geospatial data management and analysis functions			
CO2. Understanding of analytical modelling with GIS			
CO3. Understanding of thematic map designing using GIS			
CO4. The students will be able to understand the GIS data standards and Digital Elevation Model (DEM).			
CO5. To understand the Integration of Remote sensing and GIS as well as GIS project design and planning methodologies.			
Credit: 4+0+0		Paper (Core Compulsory / Elective): Elective (Minor)	
Max. Marks : 80 + 20		Min. Passing Marks :	
Total Number of Lectures (Lecture – Tutorials – Practical): 60 + 0 + 0			
Units:	Topics:		No. of Lectures
I	❖ Definition and Evolution of GIS; Components of GIS; Issues in GIS: user, technology, data and application; Recent trends in GIS; Mobile GIS		6
II	Geographical data: types and characteristics; Spherical and plane coordinate systems in GIS;		6
III	Implications of earth's shape and datum in geo-referencing, Digital representation of geographic data: Data structure, spatial data model, raster and vector models.		6
IV	GIS data standards: concepts and components; Digital Elevation Model (DEM): characteristics and applications.		6

V	Integration of Remote sensing and GIS; GIS project design and planning methodologies; GIS data base management systems; GIS information products; Applications of GIS.	6
Suggested Readings:		
Books Recommended		
<ol style="list-style-type: none"> 1. Bonham, Carter G.F. (1995): Information Systems for Geoscientists – Modelling with GIS. Pergamon, Oxford. 2. Burrough, P.A. and McDonnell, R. (1998): Principles of Geographic Information Systems. Oxford University Press, Oxford. 3. Chang, K.T. (2003): Introduction to Geographic Information Systems. Tata McGraw Hill Publications Company, New Delhi. 4. Chauniyal, D. D. (2004): Remote Sensing and Geographic Information Systems. (in Hindi). Sharda Pustak Bhawan, Allahabad. 5. Demers, M. N. (2000): Fundamentals of Geographic Information Systems. John Wiley and Sons, Singapore. 6. ESRI (1993): Understanding GIS. Redlands, USA 7. Fraser Taylor, D.R. (1991): Geographic Information Systems. Pergamon Press, Oxford. 8. George, J. (2003): Fundamentals of Remote Sensing. Universities Press Private Ltd, Hyderabad. 9. Girard, M. C. and Girard, C. M. (2003): Processing of Remote Sensing Data. Oxford and IBH, New Delhi. 10. Glen, E. M. and Harold, C. S. (1993): GIS Data Conversion Handbook. Fort Collins, Colorado, GIS Word Inc. 11. Goodchild, M.F.; Park, B. O. and Steyaert, L. T. (eds.) (1993): Environmental Modelling with GIS. Oxford University Press, Oxford. 12. Guptill, S.C., and Morrison, J.L. (1995): Elements of Spatial Data Quality. Elsevier/ Pergamon, Oxford. 13. Heywood, I. (2003): An Introduction to Geographical Information Systems. 2nd edition, Pearson Publishing Company, Singapore. 14. Korte, G. M. (2002): The GIS Book. On Word Press: Thomson Learning, New York and Singapore. 15. Lo, C.P. and Yeung, A. K. W. (2002): Concepts and Techniques of Geographic Information Systems. Prentice Hall of India, New Delhi. 16. Longley, P. and Batty, M. (eds.) (1996): Spatial Analysis: Modelling in a GIS Environment. GeoInformation International, Cambridge. 17. Longley, P., Goodchild, M.F., Maguire, D. and Rhind, D. (1999): Geographic Information Systems. Principles, Techniques, Management, Applications. John Wiley and Sons, New York. 18. Maguirre, D. J.; Michael F. G. and David W. R. (1999): Geographical Information Systems: 19. Principles and Application. Geo Information International, Vol.2, Longman Publication., New York. 20. Martin, D. (1996): Geographic Information Systems: Socioeconomic Implications. Routledge, London. 21. Michael F. G. and Karan K. K. (ed.) (1990): Introduction to GIS. NCGIA, Santa Barbara, California. 22. Ralston, B. A. (2002): Developing GIS Solutions with Map Objects and Visual Basic. OnWord Press: Thompson Learning, New York and Singapore. 23. Reddy, M. A. (2001): Textbook of Remote Sensing and Geographic Information Systems. B. S. Publications., Hyderabad. 24. Ripple, W. J. (ed.) (1989): Fundamentals of Geographic Information Systems: A Compendium. ASPRS/ ACSM, Falls Church. 25. Siddiqui, M.A. (2005): Introduction to Geographical Information Systems, Sharda Pustak Bhawan, Allahabad. 26. Star, J. and Estes, J. (1990): Geographic Information Systems – An Introduction. Prentice-Hall, Englewood Cliffs, New Jersey. 27. Worboys, M. F. (1995): GIS: A Computing Perspective. Taylor and Francis, London. 28. Bhatta, B. (2010), Remote Sensing and GIS, Oxford University Press, New Delhi. 		
This course can be opted as an elective by the students of other discipline		
<u>Suggested continuous E-Valuation Methods –</u>		
Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-		
Assignment/Practical/Projects – 05 Marks		
Internal Class Test – 10 Marks		
Attendance/Behavior – 05 Marks		

Other Courses:

Minor : To be Chosed from POOL B

SEMESTER-VIII

Programme: B.A. (Honours/Honours with Research) in Geography	Year: B. A. 4 th Year	Semester: VIII th
Pedagogy:		
Course Code: GEO-23112	Course/Paper Title:	Remote Sensing & Geographical Information System
Course Objective & Outcomes: Course Objectives: <ol style="list-style-type: none"> 1. To apprise the students to various aspects of Aerial photographs. 2. To introduce about Remote Sensing and GIS. 3. To teach about the important elements of the Geospatial technology. . 4. Student will be familiar with modern techniques in Geography. 5. Students will be prepared to apply their skills in professional careers. 		
Course Outcome: By the end of the Course, the student will be able to:		
CO1. Students will demonstrate knowledge of the foundations and theories of geographic information systems (GIS) and use the tools and methods of GIS. CO2. Students will demonstrate their competence to work individually and as a team to develop and present a client-driven GIS solution. CO3. Student will be familiar with modern techniques in Geography. CO4. Student will be familiar with application of GIS. CO5. Students will be prepared to apply their skills in professional careers.		
Credit: 6+0+0	Paper (Core Compulsory / Elective): Core Compulsory	
Max. Marks : 80 + 20	Min. Passing Marks :	
Total Number of Lectures (Lecture – Tutorials – Practical): 90 + 0 + 0		
Units:	Topics:	No. of Lectures
I	Remote Sensing: Concept and Scope; Electro-magnetic Radiation: Characteristics, Spectral regions and Bands; Interaction with earth surface features and atmosphere; Spectral Signature.	20
II	Types of Remote Sensing: Air borne and Space borne; Aerial photos: Types and Characteristics; Remote Sensing satellites: Platforms and sensors.	20
III	Visual and Digital image processing techniques; Remote Sensing application in resource mapping and environmental monitoring.	15
IV	FUNDAMENTALS OF GIS: Concepts and definitions; Evolution and development of GIS; Computer environment for GIS; GIS as decision support system.	15
V	Application of GIS technology in utilities management and other fields-GIS in land information system, urban management, environmental of management and emergency response system; Adoption of GIS technology in India; GIS project designing and implementation, Future prospects of GIS.	20
Suggested Readings:		
Books Recommended <ol style="list-style-type: none"> 1. Curran, P.J. (1985): Principles of Remote Sensing, Longman, London 2. Lillesand, T.M. and Kiefer, R.W. (2000): Remote Sensing and Image Interpretation. 4th edition. John Wiley and Sons, New York 3. Campbell, J.B. (2002): Introduction to Remote Sensing. 5th edition, Taylor and Francis, London. 4. Bhatta, B. (2010): Remote Sensing and GIS, Oxford University Press, New Delhi. 5. Nag Prithvish and Kudrat M. (1998): Digital Remote Sensing, Concept Publishing Company, New Delhi 6. S. Aronoff: Geographic Information Systems: A Management Perspective, D.D.L. Publication, Ottawa, 1989. 		

7. P.A. Burrough: Principles of Geographic Information Systems for Land Resource Assessment, Oxford University Press, New York, 1986.
8. D.R. Fraser, Taylor: Geographic Information Systems, Pergaman Press, Oxford, 1991.
9. D.J. Peuquet and D.F.Marble: Introductory Readings in Geographic Information Systems, Taylor & Francis, Washington, 1990.
10. J. Star and J Estes: Geographic Information Systems: An Introduction, Prentice Hall, England Cliff, New Jersey, 1994.
11. Marks S. Monmonier: Computer- Assisted Cartography, Prentice Hall, Englewood Cliff, New Jersey, 1982.
12. I. Heywood et al: An Introduction to Geographical Systems, Pearson Education, Ltd. New Delhi, 2002.
1. 13. Christopher B. Jones: Geographical Information Systems and Computer Cartography, Addison Wealey Longman Ltd. England, 1997.

Suggested continuous E-Valuation Methods –

Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-

Assignment/Practical/Projects –	05 Marks
Internal Class Test –	10 Marks
Attendance/Behavior –	05 Marks

Major (Elective) : Choose any Two Courses

Programme: B.A. (Honours/Honours with Research) in Geography		Year : B. A. Fourth year	Semester: VIII
Pedagogy:			
Course Code : GEO-23113A		Course/Paper Title : Earths Dynamic Systems	
Course Outcome- Course Objectives: 1. To understand the theories of the earth's origin and its continents. 2. To understand the mechanism of plate movements of the earth. 3. To understand the origin and formation of physical landforms on the surface of the earth. After completing this course, the students will be able to-			
CO1. Understand earth's tectonic and structural evolution, gain knowledge about earth's interior and develop an idea about concept of plate tectonic and resultant landforms. CO2. Acquire knowledge about types of folds and faults and earthquakes, volcanoes and associated landforms. CO3. Understanding crustal mobility and tectonics; with special emphasis on their role in landform development. CO4. To understand the concept of cycle of erosion and its related theories. CO5. To understand the processes and resultant landforms of different physical features.			
Credits: 4+0+0		Paper(core compulsory/Elective): Elective	
Max. Marks: 20+80		Min. Marks:	
Total Number of Lecture(Lecture-Tutorials-Practical); 60+0+0			
Units:	Topics:		No. of Lecture
I	Diastrophism; Origin of Continents, Ocean, Basins; Theories of Lothian Green, F.B. Taylor, A.G. Wegener; Isostasy; Volcanism and associated landforms.		12
II	Folding and faulting; Formation of folded mountains; Theories of mountain building, geosynclinal theory of Kober.		12
III	Thermal convection theory of Jeffreys, Convection current theory of Holmes, sliding continent theory of Daly, Plate Tectonic Theory.		12
IV	Concept of cycle of erosion by W. M. Davis and W. Penck; Interruption in normal cycle of erosion and poly cyclic relief.		12
V	Mass movement of rock wastes; Mechanism of coastal, ground water and periglacial processes and resultant landforms.		12
Suggested Readings: Books Recommended 1. A.L. Bloom: Geomorphology, Prentice Hall, New Delhi. 2. B.W. Sparks Geomorphology Longmans, London 3. C. Embleton and C.A. M.King: Glacial and Preiglacial Geomorphology, Edward Arnold Publishers, London 4. M.J. Bradshaw et. al: The Earths Changing Surface, ELBS,U.K. 5. R.J. Chorley, et. al. Geomorphology, Methuen, London. 6. R.J. Small: The Study of Landforms, Cambridge University Press, Cambridge. 7. Savindra Singh: Geomorphology, Prayag Pustak Bhawan, Allahabad 8. V.S.Kale and A. Gupta: Introduction to Geomorphology, Orient Longman Ltd. Hyderabad.			

9. Savindra Singh Bhuakriti Vigyan, Vasundhara Prakashan, Gorakhpur.
10. D.S. Lal: Climatology, Sharda Pustak Bhawan, Allahabad
11. G.T. Trewartha and L.A. Horn: An Introduction to Climate, International Studies.
12. H.J. Critchfield: General Climatology, Prentice Hall of India, New Delhi.
13. P.K. Das: Monsoons, National Book Trust, New Delhi
14. R.J. Chorley and R.G. Barry: Atmosphere, Weather and Climate, Mathuen & Co. Ltd. London.
15. Savindra Singh : Climatology, Prayag Pustak Bhawan, Allahabad.
16. Savindra Singh :Jalvayu Vigyan, Prayag Pustak Bhawan, Allahabad.

Suggested continuous E-Valuation methods-

Continous Internal E-Valuation shall be on assignment and class text, The marks shall be as fallows-
 Assignment/Practical/Project - 5 marks
 Internal viva voce -10 Marks
 Attendance / Behaviour - 5 marks

Or

Programme: B.A. (Honours/Honours with Research) in Geography		Year: B. A. 4 th Year	Semester: VIII th
Pedagogy:			
Course Code: GEO-23113B		Course/Paper Title: Agricultural Geography	
Course Objectives & Outcomes:			
Course Objectives:			
1. To understand the correlation between agricultural activity and its determinants.			
2. Classify various types of agricultural system in the world and differentiate.			
3. Discuss the problems and prospects of agriculture and understand the concept of sustainable agricultural development.			
Course Outcome: By the end of the Course, the student will be able to:			
CO1. To understand the world agricultural systems, agricultural regions and agricultural land use and differentiate among them.			
CO2. To understand the physical, social, economic and cultural factors responsible for specific agricultural system and land use.			
CO3. To understand the political factors responsible for agricultural development.			
CO4. To understand the Agro-climatic regions and green revolution of India.			
CO5. To understand the land and institutional reforms, agricultural planning and policies in India.			
Credit: 4+0+0		Paper (Core Compulsory / Elective): Elective	
Max. Marks : 80 + 20		Min. Passing Marks :	
Total Number of Lectures (Lecture – Tutorials – Practical): 60 + 0 + 0			
Units:	Topics:		No. of Lectures
I	Meaning and scope of agricultural geography; Approaches to agricultural geography; Physical, cultural and institutional factors affecting agriculture.		12
II	Crop concentration and crop diversification; Delineation of crop combination regions; Agricultural regions of the world; Detailed study of subsistence, plantation, commercial and mixed farming		12
III	Agricultural land-use and carrying capacity; Land use pattern with special reference to India; Measures of agricultural efficiency and agricultural productivity.		12
IV	Agro-climatic regions of India, Green revolution in India; Second generation reforms in Indian agriculture.		12
V	Land and institutional reforms; Organic and contract farming; Agricultural planning and policies in India.		12

Suggested Readings:**Books Recommended**

1. Dumont, R.(1970): Types of Rural Economy: Studies in World Agriculture, Douglas Manin, London Methuen.
2. Gregor, H. P. (1970): Geography of Agriculture. Prentice-Hall, New York. 3. Husain, M. (1996): Systematic Agricultural Geography, Rawat Publications, Jaipur.
4. Misra, R. P. (1967): Diffusion of Agricultural Innovations, University of Mysore, Mysore.
5. Mohammad, A.(1978): Studies in Agricultural Geography, Rajesh Publications, New Delhi
6. Morgan, W. B. and Norton, R.J.C. (1971): Agricultural Geography. Methuen, London.
7. Sauer, O. C. (1969): Agricultural Origins and Dispersals. MIT Press, Cambridge.
8. Shafi, M. (2006): Agricultural Geography, Pearson Education, New Delhi.
9. Sen, Sudhir (1975): Reaping the Green Revolution. Tata McGraw-Hill, New Delhi
10. Shafi, M.(2000): Agricultural Geography of South Asia, McMillan, Delhi
11. Singh, B.B. (1979) : Krishi Bhugol. Tara Publications, Varanasi.
12. Singh, J. and Dhillon, S.S. (2000): Agricultural Geography. Tata McGraw Hill, New Delhi.
13. Singh, S. (1994): Agricultural Development in India: A Regional Analysis, Kaushal Publications, Shillong.
14. Symons, L. (1967): Agricultural Geography. George Bell and Sons, London.
15. Tarrant J. R. (1974): Agricultural Geography. John Wiley and Sons, New York.

Suggested continuous E-Valuation Methods –

Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-

Assignment/Practical/Projects –	05 Marks
Internal Class Test –	10 Marks
Attendance/Behavior –	05 Marks

Or

Programme: B.A. (Honours/Honours with Research) in Geography	Year: B. A. 4 th Year	Semester: VIII th
Pedagogy:		
Course Code: GEO-23113C	Course/Paper Title:	Cultural Geography
Course Objectives & Outcomes:		
Course Objectives:		
<ol style="list-style-type: none"> 1. To understand the culture and its development as well as differences in various cultures of the world. 2. To understand the origin and dispersal of human races and its related cultural diffusion. 3. To understand the social, economic and political influences on world cultures. 		
By the end of the Course, the student will be able to:		
CO1. To understand the origin of cultures and factors responsible for the origin and development of specific types of culture. CO2. To identify cultural hearths and process of diffusion of cultures to the various parts of the world. CO3. To understand the role of modernisation and globalisation on existing cultural regions and predict the possible changes. CO4. To be able to understand the Racial composition of India and Major Religions of the world. CO5. To be able to understand the major cultural realms of the world and space adjustment.		
Credit: 4	Paper (Core Compulsory / Elective): Elective	
Max. Marks : 80 + 20	Min. Passing Marks :	
Total Number of Lectures (Lecture – Tutorials – Practical): 60 + 0 + 0		
Units:	Topics:	No. of Lectures
I	Concept of Culture; Meaning and scope of cultural geography; Processes of Cultural evolution; Cultural changes—perception.	12
II	Behaviouralism and cultural relativism; Major concepts—cultural diffusion, material culture, cultural landscape, cultural ecology, acculturation.	12

III	Origin and dispersal of man; Cultural hearths; Primitive culture; Agricultural practices, Agricultural innovations; industrial and technological revolution; globalization and cultural development, cultural conflict.	12
IV	Origin and dispersal of human races; zone-strata theory; Racial composition of India, Major Religions of the world; Religion and economic development; Major linguistic families; world distribution of major languages; Religious composition of India.	12
V	Environment and Culture; environmental perception; Resources and culture; space adjustment and space intensification; major cultural realms of the world; Major cultural regions of the world.	12

Suggested Readings:

Books Recommended

1. J.E. Spencer and W.L. Thomas: Introducing Cultural Geography John Willey and Sons, New York, 1973.
2. P.J.Wagner and M.W.Mikesell: Readings in Cultural Geography, University of Chicago Press, 1962
3. F. Rostlund: Outline of Cultural Geography, California Book Co. Berkley.
4. S. N. Dicken & F. R. Pitts: Introduction to Cultural Geography: A Study of Man and his Environment, Gown and Co. Waltham. Mass. 30.
5. C.L. Saltar: The Cultural Landscape, Durbury Press, Clifornia, 1971.
6. J.M. Broek: Geography of Mankind, Mc. Graw Hill, New York..
7. T.G. Jordon & L. Lawntree: The Human Mosaic-A Thematic Introduction to Cultural Geography, Harper and Row, New York.
8. G.F. Carter: Man and the Land-A Cultural Geography; Reinhardt, New York, 1968.
9. F.E. Dohrs, L.M. Sommers (Ed): Cultural Geography-Selected Readings, Dunn-Donnal Publishing Corporation, New York, 1967.
10. David E. Sopher: Geography of Religions, Prentice Hall, New Jersey.
11. E.F. Frazier: Race and Cultural Contacts in the Modern World, A.A. Knopf, New York 1957.
12. R. Coulborn: The Origin of Civilized Societies, Princeton University Press, Prirection, N.J. 1959.
13. P.L. Wagner: Environment of People, Prentice Hall, Englewood, Cliffts 1972.

Suggested continuous E-Valuation Methods –

Continuous Internal E-Valuation shall be based on allotted assignment and class text. The marks shall be as follows-

Assignment/Practical/Projects –	05 Marks
Internal Class Test –	10 Marks
Attendance/Behavior –	05 Marks

Programme: B.A. (Honours/Honours with Research) in Geography	Year: B.A. 4th Year	Semester: VIIIth
Pedagogy:		
Course Code: GEO-23114A	Course/Paper Title:	Disseration/Research Project & Viva voce [For Hons. with Research Students]
Course Objective & Outcomes:		
Course Objectives:		
1. According to the specialization the assigned topic has to be studied in a particular area.		
2. To understand what is a case study and how to perform an inductive or deductive study.		
Course Outcome: After completing this course, the students will be able to -		

CO1. According to the specialization the students learn to take up a case study and generalize the phenomena studied.		
CO2. To learn about the research methodology and relevance of the case study.		
CO3. To apply the knowledge and techniques learnt in report writing and data analysis.		
Credit: 08		Paper (Core Compulsory / Elective): Elective
Max. Marks : 20 + 80		
Total Number of Lectures (Lecture – Tutorials – Practical): 0+0+8		
Units:	Topics:	No. of Lectures
I	Dissertation/ Research Project & Viva Voce	240
Suggested Readings:		
<ol style="list-style-type: none"> 1. "Research Design: Qualitative, Quantitative, and Mixed Methods Approaches" by John W. Creswell and J. David Creswell This book covers various research designs and approaches, helping you select the most appropriate one for your dissertation. It's suitable for both qualitative and quantitative research. 2. "The Craft of Research" by Wayne C. Booth, Gregory G. Colomb, and Joseph M. Williams This book is a comprehensive guide to the research process, from formulating research questions to presenting findings. It offers practical advice and strategies for effective research. 3. "How to Write a Better Thesis" by David Evans, Paul Gruba, and Justin Zobel Geared towards graduate students, this book provides practical guidance on planning, writing, and revising a thesis or research project. It covers a range of disciplines and research methods. 4. "Completing Your Qualitative Dissertation: A Roadmap from Beginning to End" by Linda Dale Bloomberg and Marie F. Volpe Focused on qualitative research, this book offers step-by-step guidance on the entire dissertation process, including choosing a topic, data collection, analysis, and writing. 5. "Writing Your Dissertation in Fifteen Minutes a Day" by Joan Bolker This book offers practical strategies to help you overcome writer's block and procrastination while writing your dissertation. It emphasizes consistent writing habits. 6. "The Dissertation Journey: A Practical and Comprehensive Guide to Planning, Writing, and Defending Your Dissertation" by Carol M. Roberts This book provides a holistic approach to the dissertation process, covering topics such as time management, literature review, research design, and defense preparation. 7. "How to Design, Write, and Present a Successful Dissertation Proposal" by Elizabeth A. Wentz Focusing on the proposal stage, this book offers guidance on crafting a clear and effective dissertation proposal, including outlining research questions and methodologies. 8. "Writing the Successful Thesis and Dissertation: Entering the Conversation" by Irene L. Clark This book emphasizes the importance of contributing to the scholarly conversation in your field and provides practical advice on how to structure and present your research. 9. "The Literature Review: Six Steps to Success" by Lawrence A. Machi and Brenda T. McEvoy A comprehensive guide to conducting a literature review, a crucial component of any research project or dissertation. 10. "Demystifying Dissertation Writing: A Streamlined Process from Choice of Topic to Final Text" by Peg Boyle Single This book offers a straightforward and organized approach to the dissertation process, helping you break down the tasks and stay on track. 		
<u>Suggested continuous E-Valuation Methods –</u>		
<p>Continuous Internal Evaluation (CIL) Total marks for each course shall be based on internal assessment (20%) and semester end examination (80%). The internal assessment of 20% shall be distributed as under:</p> <p>(x) Internal Class Test – 10%.</p> <p>(xi) Assignment/Project/Practical – 5%</p> <p>(xii) Attendance/Behavior – 5%.</p>		

Or

Programme: B.A. (Honours/Honours with Research) in Geography		Year: B.A. 4th Year	Semester: VIIIth
Pedagogy:			
Course Code: GEO-23114B		Course/Paper Title: Field Survey, Report Writing & Viva- Voce [For Students Pursuing Honours in the Discipline]	
Course Objective & Outcomes: Course Objectives: 1. According to the specialization the assigned topic has to be studied in a particular area. 2. To understand what is a case study and how to perform an inductive or deductive study. Course Outcome: After completing this course, the students will be able to -			
CO1. According to the specialization the students learn to take up a case study and generalize the phenomena studied. CO2. To learn about the research methodology and relevance of the case study. CO3. To apply the knowledge and techniques learnt in report writing and data analysis			
Credit: 08		Paper (Core Compulsory / Elective): Elective	
Max. Marks : 20 + 80			
Total Number of Lectures (Lecture – Tutorials – Practical): 0+0+8			
Units:	Topics:		No. of Lectures
I	Field Survey, Report Writing & Viva- Voce		240
Suggested Readings:			
<p>11. "Research Design: Qualitative, Quantitative, and Mixed Methods Approaches" by John W. Creswell and J. David Creswell This book covers various research designs and approaches, helping you select the most appropriate one for your dissertation. It's suitable for both qualitative and quantitative research.</p> <p>12. "The Craft of Research" by Wayne C. Booth, Gregory G. Colomb, and Joseph M. Williams This book is a comprehensive guide to the research process, from formulating research questions to presenting findings. It offers practical advice and strategies for effective research.</p> <p>13. "How to Write a Better Thesis" by David Evans, Paul Gruba, and Justin Zobel Geared towards graduate students, this book provides practical guidance on planning, writing, and revising a thesis or research project. It covers a range of disciplines and research methods.</p> <p>14. "Completing Your Qualitative Dissertation: A Roadmap from Beginning to End" by Linda Dale Bloomberg and Marie F. Volpe Focused on qualitative research, this book offers step-by-step guidance on the entire dissertation process, including choosing a topic, data collection, analysis, and writing.</p> <p>15. "Writing Your Dissertation in Fifteen Minutes a Day" by Joan Bolker This book offers practical strategies to help you overcome writer's block and procrastination while writing your dissertation. It emphasizes consistent writing habits.</p> <p>16. "The Dissertation Journey: A Practical and Comprehensive Guide to Planning, Writing, and Defending Your Dissertation" by Carol M. Roberts This book provides a holistic approach to the dissertation process, covering topics such as time management, literature review, research design, and defense preparation.</p> <p>17. "How to Design, Write, and Present a Successful Dissertation Proposal" by Elizabeth A. Wentz Focusing on the proposal stage, this book offers guidance on crafting a clear and effective dissertation proposal, including outlining research questions and methodologies.</p> <p>18. "Writing the Successful Thesis and Dissertation: Entering the Conversation" by Irene L. Clark This book emphasizes the importance of contributing to the scholarly conversation in your field and provides practical advice on how to structure and present your research.</p> <p>19. "The Literature Review: Six Steps to Success" by Lawrence A. Machi and Brenda T. McEvoy A comprehensive guide to conducting a literature review, a crucial component of any research project or dissertation.</p> <p>20. "Demystifying Dissertation Writing: A Streamlined Process from Choice of Topic to Final Text" by Peg Boyle Single This book offers a straightforward and organized approach to the dissertation process, helping you break down the tasks and stay on track.</p>			

Suggested continuous E-Valuation Methods –

Continuous Internal Evaluation (CIL)

Total marks for each course shall be based on internal assessment (20%) and semester end examination (80%). The internal assessment of 20% shall be distributed as under:

- (xiii) Internal Class Test – 10%.
- (xiv) Assignment/Project/Practical – 5%
- (xv) Attendance/Behavior – 5%.

Completion of the Programme: Bachelor Degree with Honours/Honours with Research in Major Discipline at the Successful Completion of the Fourth Year (Eight Semesters) of the multidisciplinary Four-year Undergraduate Programme.

APPENDIX

POOL-B

Minor Discipline Courses (For I & IIrd Semester)

Year	Semester	Nomenclature/Title of the Course	VAC Code	Credit
1st Year	I	Modern Indian language – Hindi P-I	MIN-001	2
		Modern Indian language – Sanskrit P-I	MIN-002	2
		Modern Indian language – English language P-I	MIN-003	2
1st Year	II	Modern Indian language – Hindi P-II	MIN-004	2
		Modern Indian language – Sanskrit P-II	MIN-005	2
		Modern Indian language – English language P-II	MIN-006	2

POOL- C

Skill Enhancement Courses

S.N.	SEC Code	Title of SEC / Vocational Courses	Level	COM./ELE	Credits (L/T+P)
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1	SEC-001	Digital Marketing	NSQF 5	ELE.	1+2
2	SEC-002	Culinary Arts	NSQF 5	ELE.	1+2
3	SEC-003	Tourism & Travel Management	NSQF 5	ELE.	1+2
4	SEC-004	Early Childhood Education	NSQF 5	ELE.	1+2
5	SEC-005	Sports Coaching	NSQF 5	ELE.	1+2
6	SEC-006	Financial accounting & Taxation	NSQF 5	ELE.	1+2
7	SEC-007	Retail Management	NSQF 5	ELE.	1+2
8	SEC-008	Supply Chain Management	NSQF 5	ELE.	1+2
9	SEC-009	Digital Photography & Videography	NSQF 5	ELE.	1+2
10	SEC-010	Yoga and Nutrition Expert	NSQF 5	ELE.	1+2
11	SEC-011	Disaster Management	NSQF 5	ELE.	1+2
12	SEC-012	Digital Library Establishment	NSQF 5	ELE.	1+2
13	SEC-013	Computerized Accounting (Tally)ERP-9/Prime)	NSQF 5	ELE.	1+2
14	SEC-014	Apiculture	NSQF 5	ELE.	1+2
15	SEC-015	Aquaculture	NSQF 5	ELE.	1+2
16	SEC-016	Vermiculture	NSQF 5	ELE.	1+2
17	SEC-017	Sericulture	NSQF 5	ELE.	1+2
18	SEC-018	Horticulture	NSQF 5	ELE.	1+2
19	SEC-019	Mushroom Cultivation	NSQF 5	ELE.	1+2
20	SEC-020	Herbal Technology	NSQF 5	ELE.	1+2
21	SEC-021	Basic Instrumentation Skills	NSQF 5	ELE.	1+2
22	SEC-022	Digital Electronics	NSQF 5	ELE.	1+2
23	SEC-023	Organic Farming	NSQF 5	ELE.	1+2
24	SEC-024	Water Management (Ganges)	NSQF 5	ELE.	1+2
25	SEC-025	Computational Chemistry	NSQF 5	ELE.	1+2
26	SEC-026	Industrial Chemistry	NSQF 5	ELE.	1+2
27	SEC-027	Jyotish Shashtra and Karmakand	NSQF 5	ELE.	1+2
28	SEC-028	Vastushastra	NSQF 5	ELE.	1+2
29	SEC-029	Radio Jockey CCRJ	NSQF 5	ELE.	1+2

POOL-D

Value Added Courses

Year	Semester	Nomenclature/Title of the Course	VAC Code	Credit
1st Year	I	Understanding India	VAC-001	2
1st Year	II	Communication Skills and Personality development	VAC-002	2
2nd Year	III	Indian Heritage and Culture	VAC-003	2
2nd Year	IV	Food, Nutrition and Hygiene	VAC-004	2
3rd Year	V	Gram Pravas and Talking Hands	VAC-005	2
3rd Year	VI	Physical Education and Yoga	VAC-006	2
