



BENGALURU CITY UNIVERSITY

CHOICE BASED CREDIT SYSTEM

(As per SEP)

Syllabus for B.A/ B.Sc. Geography

2025-26 onwards

Proceedings

of curriculum and syllabus for B.A/B.Sc. Geography Under Graduate Program in Geography

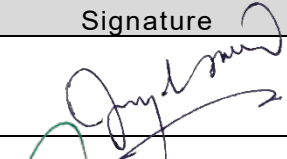






As per the guidelines issued in the Government of Karnataka order No: ED 166 UNE 2023 Bengaluru, Date: 08/05/2024, to implement the State Education Policy, the BOS, Geography UG Committee meeting was held on 10th to 12th of June 2025 in the Central College, Bangalore City University at 10.30 am. The BOS meeting is conveyed to discuss and finalize curricula and syllabus for Three Years under Graduate Program commencing during 2025-26 for III & IV Semesters of the Geography course for whole BA/BSc Programme.

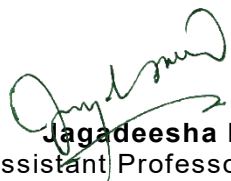
At the outset **Jagadeesha N**, Assistant Professor and Chairman BOS UG, Department of Geography, Govt. Arts College, Bangalore - 01, Welcomed the Committee Members for the meeting and informed that University has directed to conduct BOS meeting to approve **Curriculum and Syllabus for B. A. / B. Sc. Geography Under Graduate Program** in Geography to be commenced in 2025-26 which has been designed on par with the guidelines given in the above-mentioned SEP implementation order.

Subsequently the BOS UG Committee members discussed thoroughly and recommended as under

Item	Recommendations of the Committee
1 Approval of the curriculum and syllabus for B. A / B. Sc. Geography Under Graduate Programme in Geography to be commenced in 2025-26 (III & IV Sem)	The BOS Committee resolved curriculum and Syllabus for B. A / B. Sc. Geography Under Graduate Programme in Geography to be commenced in 2025-26 (III & IV Sem.)

Jagadeesha N, Assistant Professor and Chairman BOS assured that the recommendations of the committee will be submitted to the University for further processing. The meeting concluded with vote of thanks.

Members of BOS Committee		
	Name, designation and address	Signature
1.	Jagadeesha N , Assistant Professor, Department of Geography, Govt. Arts College, Bangalore-01	
2.	Dr. Ashok Hanjagi , Professor and Chairman, Department of Geography, Bangalore University, Bangalore - 560056	
3.	Dr. Surendra P. , Assistant Professor, Department of Geography, Bangalore University, Bangalore - 560056	
4.	Prof. Rajasekaran D , Professor and HOD, Department of Geography, Govt. First Grade College, Ramanagara	
5.	Dr. Shivamurthy H. N , Associate Professor, Department of Geography, Govt. Arts College, Bangalore-01	
6.	Umme Naseeba , Associate Professor, Department of Geography, Government Arts College, Bangalore - 01	
7.	Dr. Srinivasa , Associate Professor, Department of Geography, Government First Grade College, Kengeri, Bangalore, PIN- 560040	


Jagadeesha N
Assistant Professor and
Chairman, BOS, UG
Bangalore City University

Program Name	BA / BSc in Geography		Semester	III
Course Title	Human Geography			
Course Code:	DSCGE311	No. of Credits	3	
Contact hours	52 Hours (4/week)	Duration of SEA/Exam	3 hours	
Formative Assessment Marks	20	Summative Assessment Marks	80	

Course Outcomes (COs): After the successful completion of the course, the student will be able to:

- CO 1. Define key concepts, models, and approaches in human and settlement geography using appropriate geographic terminology.
- CO 2. Explain the interrelationships between environmentalism, cultural regions, and demographic factors in shaping human geography.
- CO 3. Apply locational analysis and quantitative indices to case studies like Bangalore's CBD, human development, and rural-urban dynamics.
- CO 4. Analyze population dynamics and settlement patterns by comparing migration theories and central place hierarchies in urban and rural contexts
- CO 5. Evaluate the sustainability of urbanization policies and create proposals for improving social well-being and environmental impact in local settings.

Syllabus		52 Hrs
Perspectives in Human Geography: Areal Differentiation; Regional Synthesis; Dichotomy and Dualism; Environmentalism; Quantitative Revolution and Locational Analysis; Radical, Behavioural, Human and Welfare Approaches; Languages, Religions (Hinduism, Christianity, Islam and Buddhism) and Secularisation; Cultural Regions of the World; Human Development Index.		14
Settlement Geography: Types and Patterns of Rural Settlements; Environmental Issues in Rural Settlements; Hierarchy of Urban Settlements; Urban Morphology; Concept of Primate City and Rank-Size Rule; Functional Classification of Towns; Sphere of Urban Influence; Rural-Urban Fringe; Satellite Towns; Problems and Remedies of Urbanization; Sustainable Development of Cities. Case Study: Changing Rural Settlement Patterns and Environmental Challenges – A Study of a Village in Bangalore Rural District / Urban Morphology and Functional Classification of Towns – A Study of Bangalore Central Business District (CBD) / Human Development Index at Ward Level – A Micro Analysis in Bangalore's Peripheral Areas		14
Population Geography: Growth and Distribution of World Population; Demographic Attributes; Causes and Consequences of Migration; Concepts of Over-Under-and Optimum Population; World Population Problems and Policies, Social Well-Being and Quality of Life; Population as Social Capital.		12
Models, Theories and Laws in Human Geography: System Analysis in Human Geography; Malthusian, Marxian and Demographic Transition Models; Central Place Theories of Christaller and Losch; Perroux and Boudeville; Von Thunen's Model of Agricultural Location; Weber's Model of Industrial Location; Rostov's Model of Stages of Growth. Heartland And Rimland Theories; Laws of International Boundaries and Frontiers. Field Study: Migration Patterns and Quality of Life in Urban Slums – A Case Study in Bangalore / Population Density and Demographic Transition – A Ward-Level Analysis in Bangalore / Central Place Hierarchy and Urban Services – A Study of Towns around Bangalore.		12

References	
<ol style="list-style-type: none"> 1. Castree, Noel, et al., editors. <i>A Companion to Environmental Geography</i>. Wiley-Blackwell, 2016. 2. Daniels, Peter, et al. <i>Human Geography: Issues for the 21st Century</i>. Pearson, 2003. 3. de Blij, Harm J. <i>Human and Economic Geography</i>. Macmillan, 1992. 4. Dickens, F. E., and J. A. Pitts. <i>Introduction to Human Geography</i>. 1963. 5. Fouberg, Erin H. <i>Human Geography: People, Place, and Culture</i>. 13th ed., Wiley, 2020. 6. Hopkinson, M. F. <i>The Geography of Settlement</i>. Oliver & Boyd, 1989. 7. Hussain, Majid. <i>Human Geography</i>. Rawat Publications, 2003. 8. Johnston, R. J., Gregory, Derek, Pratt, Geraldine, and Michael Watts, editors. <i>The Dictionary of Human Geography</i>. 5th ed., Blackwell Publishing, 2008. 9. Jordan-Bychkov, Terry G., et al. <i>The Human Mosaic: A Thematic Introduction to Cultural Geography</i>. 11th ed., W. H. Freeman and Company, 2006. 10. Knox, Paul L., and Sallie A. Marston. <i>Human Geography: Places and Regions in Global Context</i>. 8th ed., Pearson, 2021. 11. Nellson, Gabler, and Vining. <i>Human Geography: People, Cultures and Landscapes</i>. 1995. 12. Ranganath, Dr. <i>Manava Bhugola Shastra (Principles of Human Geography – Kannada)</i>. Vidyanidhi Publications, Gadag. 13. Smith, David M. <i>Geography, Inequality and Society</i>. Routledge, 2017. 14. Sui, Daniel Z., and Michael F. Goodchild. <i>The GIS Guide to Public Domain Data</i>. Esri Press, 2014. (Useful for quantitative and locational analysis) 15. Warf, Barney. <i>Global Geographies of the Internet</i>. Springer, 2020. 	

Program Name	BA / BSc in Geography		Semester	III
Course Title	Map Projections		Practical Credits	02
Course Code	DSCGEP311		Contact Hours	39 Hours (3/week)
Formative Assessment		10 Marks	Summative Assessment	40 Marks
Course Outcomes (COs): After the successful completion of the course, the student will be able to:				
CO 1. Define and classify map projections based on type, surface, and preserved properties.				
CO 2. Explain the concepts and uses of cylindrical, conical, and zenithal projections.				
CO 3. Construct selected projections using graphical or mathematical techniques.				
CO 4. Compare distortions in different projections and assess their suitability for various purposes.				
CO 5. Select and justify appropriate projections for thematic and topographic mapping tasks.				
Exercise 1. Map Projections – Definition, Classification and Importance				
Exercise 2. Cylindrical Projection – Simple Cylindrical, Cylindrical Equal Area, Mercator's Projections.				
Exercise 3. Conical Projections - Simple Conical Projections, Conical Projection with Two Standard Parallels, Bonne's Projection, Polyconic Projection.				
Exercise 4. Zenithal Projections – Polar Case, Zenithal Equidistant Equal Area, Zenithal Gnomonic, Zenithal Stereographic, Zenithal Orthographic.				
Exercise 5. Conventional Projections – Sinusoidal Projection, Mollweide Projection.				

References	
1.	Crampton, Jeremy W. <i>Mapping: A Critical Introduction to Cartography and GIS</i> . Wiley-Blackwell, 2010.
2.	Field, Kenneth. <i>Cartography</i> . Esri Press, 2018.
3.	Kellaway, George P. <i>Map Projections</i> . Methuen & Co. Ltd., London.
4.	Kimerling, Jon, et al. <i>Map Use: Reading, Analysis, Interpretation</i> . 8th ed., Esri Press, 2020.
5.	Mishra, R.P. <i>Fundamentals of Cartography</i> . Concept Publishing Company, 1982.
6.	Monkhouse, F.J., and H.R. Wilkinson. <i>Maps and Diagrams</i> . Methuen & Co., 1971.
7.	Raisz, Erwin. <i>General Cartography</i> . McGraw-Hill Book Company Inc., 1962.
8.	Raisz, Erwin. <i>General Cartography</i> . McGraw-Hill, 1962.
9.	Ranganath, and Mallappa. <i>Map Projections (Kannada Version)</i> . Chetana Book House, Mysore.
10.	Robinson, Arthur H., et al. <i>Elements of Cartography</i> . 6th ed., Wiley, 1995.
11.	Salar Massod, M. <i>Map Projections</i> . Roa and Raghavam Co., Mysore.
12.	Sarkar, A. <i>Practical Geography: A Systematic Approach</i> . Orient BlackSwan, 2015.
13.	Singh, Gopal. <i>Mapwork and Practical Geography</i> . Surjeet Book Depot, New Delhi.
14.	Singh, R. L. <i>Elements of Practical Geography</i> . Student's Friends, Allahabad.
15.	Slocum, Terry A., et al. <i>Thematic Cartography and Geovisualization</i> . 4th ed., Pearson, 2022.
16.	Tyner, Judith A. <i>Principles of Map Design</i> . 2nd ed., Guilford Press, 2019.

Formative Assessment for Theory	
Assessment type	Marks
Sessional Tests	10
Seminars / Presentations / Assignment / Case study / Field-Study / Project work etc.	10
Total	20 Marks

Formative Assessment for Practical	
Assessment type	Marks
Sessional Tests-1/Lab Activity	05
Case study / Field-Study / Project work etc.	05
Total	10 Marks

Program Name	BA / BSc in Geography	Semester	III
Course Title	(Elective 1) Introduction to Physical Geography		
Course Code:	ELGE 3.1	No. of Credits	2
Contact hours	28 Hours (2/week)	Duration of SEA/Exam	1.5 hours
Formative Assessment Marks	10	Summative Assessment Marks	40

Course Outcomes (COs): After the successful completion of the course, the student will be able to:

CO 1. *Explain* the origin, shape, size, and movements of the Earth and their geographical implications.

CO 2. *illustrate* the Earth's internal structure and processes like plate tectonics, volcanism, and earthquakes.

CO 3. *Classify* various types of rocks, soils, and weathering processes and *evaluate* their significance in landscape development.

CO 4. *Interpret* the structure and composition of the atmosphere, along with spatial patterns of temperature, pressure, and rainfall.

CO 5. Assess oceanic features including sea-floor topography, temperature, salinity, currents, tides, and their global climatic roles.

Syllabus	28 Hrs
Geodesy - Solar System; Origin, Shape and Size of the Earth, Movement of the Earth - Rotation and Revolution, Effects of the movement of Earth, Coordinates - Latitude, Longitude and Time.	7
Geomorphology - Structure of the Earth; Plate tectonics; Rocks - types, significance; Weathering –types; Soil – Formation and Types; Volcanicity; Earthquakes and Tsunamis	7
Climatology - Weather and Climate; Structure and Composition of the Atmosphere; Atmospheric Temperature – determining factors and distribution; Atmospheric Pressure; Winds and Rainfall – Types.	7
Oceanography - Distribution of Land and Sea; Bottom Relief of the Ocean; Temperature and Salinity of Sea Water; Ocean Tides; Waves; Ocean currents - Atlantic, Pacific and Indian Oceans.	7

References
1. B.S. Negi (1993) Physical Geography. S.J. Publication, Meerut
2. Barry, Roger G., and Richard J. Chorley. <i>Atmosphere, Weather and Climate</i> . 10th ed., Routledge, 2021.
3. Critchfield, Howard J. <i>General Climatology</i> . 5th ed., Pearson India, 2021.
4. D.S. Lal (1998) Climatology. Chaitnya publishing house, Allahabad
5. Garrison, Tom. <i>Essentials of Oceanography</i> . 13th ed., Cengage Learning, 2021.
6. K. Siddhartha (2001) Atmosphere, Weather and Climate. Kosalaya publication, New Delhi
7. Lutgens, Frederick K., Edward J. Tarbuck, and Dennis G. Tasa. <i>The Atmosphere: An Introduction to Meteorology</i> . 14th ed., Pearson, 2019.
8. Marshak, Stephen. <i>Earth: Portrait of a Planet</i> . 6th ed., W. W. Norton & Company, 2019.
9. Press, Frank, and Raymond Siever. <i>Understanding Earth</i> . 7th ed., Macmillan Learning, 2019.
10. R.N. Tikka (2002) Physical Geography. Kedarnath Ramnath & co, Meerut
11. Skinner, Brian J., and Stephen C. Porter. <i>The Dynamic Earth: An Introduction to Physical Geology</i> . 6th ed., Wiley, 2020.
12. Strahler, Arthur N., and Alan H. Strahler. <i>Introducing Physical Geography</i> . 6th ed., Wiley, 2020.

Formative Assessment for Theory	
Assessment type	Marks
Sessional Tests	5
Seminars / Presentations / Assignment	5
Total	10 Marks

Program Name	BA / BSc in Geography	Semester	III
Course Title	(Elective 2) Introduction to Karnataka Geography		
Course Code:	ELGE 3.2	No. of Credits	2
Contact hours	28 Hours (2/week)	Duration of SEA/Exam	1.5 hours
Formative Assessment Marks	10	Summative Assessment Marks	40

Course Outcomes (COs): After the successful completion of the course, the student will be able to:

CO 1. *Describe* Karnataka's physical setting, including relief, drainage, soil types, forests, and climate.

CO 2. *Analyse* the regional distribution and significance of major food, commercial, and plantation crops in Karnataka.

CO 3. *Evaluate* the role of river valley projects in the development of agriculture and irrigation in Karnataka.

CO 4. *Classify and compare* the mineral resources and industrial development across different regions of Karnataka.

CO 5. *Interpret* the patterns of transport infrastructure and population distribution with reference to major urban centres.

Syllabus	28 Hrs
Physical Setting - Location and Extent, Relief Features, Drainage System and Climate. Soil – Types and Distribution; Forest resources – Types and Wildlife Sanctuaries	7
Agriculture - Food Crops – Ragi, Paddy and Jowar, Commercial Crops- Cotton and Sugarcane and Plantation Crops- Coffee; Major River Valley Projects – Krishna, Tungabhadra, Upper Krishna and KRS	7
Minerals and Industries - Iron ore, Manganese, Gold and Copper; Growth and Development of Industries -, Iron and Steel, Silk, Sugar, Cement and Software Industry.	7
Transportation and Population - Distribution of Roadways, Railways, Airways and Waterways; Major ports and harbours; Growth, Density and Distribution of Population; Major Urban Centres – Bangalore, Mysore, Hubli, Dharwad and Mangalore.	7

References
<ol style="list-style-type: none"> 1. Achyuthi Rao T.N.: Planning Regions of Karnataka 2. Economic Survey of Karnataka-Annual publication by Govt. of Karnataka. 3. Geetha, N. <i>Urbanisation in Karnataka: Issues and Trends</i>. NIRDPR Publications, 2022. 4. Government of Karnataka. <i>Karnataka at a Glance: Statistical Handbook 2022</i>. Department of Planning, 2022. 5. Gowda, K. M. <i>Karnataka: A Regional Geography</i>. 2nd ed., University of Mysore, 2020. 6. Hegde, G. M. <i>Karnataka Environment and Forest Resources</i>. Vikas Prakashana, 2023. (Kannada) 7. Mallappa, P. <i>Karnatakada Bhugola</i>. 5th ed., Sapna Book House, 2022. (Kannada) 8. Murthy, M. V. <i>Drainage and River Systems of Karnataka</i>. Vijaya Publications, 2019. 9. N.B.K.Reddy and Murthy: <i>Regional Geography of Karnataka</i>. 10. Prasad, S. K. <i>Economic Geography of Karnataka</i>. Prasaraanga, Karnataka University Dharwad, 2020. 11. R.P.Mishra: <i>Geography of Mysore</i>- National Book Trust, New Delhi. 12. Ranganath, B. K. <i>Karnataka Geography</i>. 4th ed., Sapna Book House, 2021. (Kannada-English Bilingual) 13. Satish, T. N. <i>Karnatakada Krushi Mattu Udyamashilathe</i>. Vidya Pustaka, 2021. (Kannada) 14. Sharma, S. C. <i>Transport and Communication in Karnataka</i>. Himalaya Publishing House, 2020.

Formative Assessment for Theory	
Assessment type	Marks
Sessional Tests	5
Seminars / Presentations / Assignment	5
Total	10 Marks

Program Name	BA / BSc in Geography	Semester	IV
Course Title	Geography of India		
Course Code:	DSCGE411	No. of Credits	3
Contact hours	52 Hours (4/week)	Duration of SEA/Exam	3 hours
Formative Assessment Marks	20	Summative Assessment Marks	80

Course Outcomes (COs): After the successful completion of the course, the student will be able to:

- CO 1. Identify India's physical features, monsoon systems, soil types, and climatic regions.
- CO 2. Explain resource distribution and agricultural practices including green and white revolutions.
- CO 3. Illustrate industrial development and transport networks using maps and field data.
- CO 4. Assess regional disparities in infrastructure and economic development using spatial analysis.
- CO 5. Propose sustainable development strategies for agriculture, industry, and transport sectors.

Syllabus	52 Hrs
Physical Setting: Space Relationship of India with Neighbouring Countries; Structure and Relief; Drainage System and Watersheds; Physiographic Regions; Mechanism of Indian Monsoons and Rainfall Patterns; Tropical Cyclones and Western Disturbances; Floods and Droughts; Climatic Regions; Natural Vegetation, Soil Types and Their Distributions.	16
Resources and Agriculture: Energy, Minerals, Biotic and Marine Resources, Forest and Wildlife Resources and Their Conservation; Energy Crisis. Agriculture Infrastructure: Irrigation, Seeds, Fertilizers, Power; Agro and Social-Forestry; Green Revolution and Its Socio-Economic and Ecological Implications; Significance of Dry Farming; Livestock Resources and White Revolution; Aqua-Culture; Sericulture, Apiculture and Poultry; Agro-Climatic Zones. Case Study: Impact of Monsoon Variability on Agriculture in Your District / Watershed Management and Soil Conservation in Your Taluk / Agro-Climatic Zoning and Crop Suitability in Your District	13
Industry: Evolution of Industries; Locational Factors of Cotton, Jute, Textile, Iron and Steel, Aluminum, Fertilizer, Paper, Chemical and Pharmaceutical, Automobile, Cottage and Agro-Based Industries; Industrial Regionalization; New Industrial Policy; Multinationals and Liberalization; Special Economic Zones; Tourism Including Ecotourism.	12
Transport, Communication and Trade Road, Railway, Waterway, Airway and Pipeline Networks and Their Complementary Roles in Regional Development; Growing Importance of Ports on National and Foreign Trade; Trade Balance; Trade Policy; Export Processing Zones; Developments in Communication and Information Technology and Their Impacts on Economy and Society; Indian Space Programme. Field Study: Industrial Cluster Mapping in Any Industrial Area in Bangalore / Role of Metro and Suburban Rail in Urban Mobility in Bangalore / Digital Divide and Communication Infrastructure in Bangalore Periphery Villages	11

References

- Bhat, L. S. *Regional Planning in India*. Statistical Publishing Society, 2023.
- Chand, Mahesh, and V. K. Puri. *Regional Planning in India*. Allied Publishers, 2020.
- Dixit, R.S. *Economic Geography: A Study of Resources*. Rawat Publications, 2020.
- Gopal Singh. *Map Work and Practical Geography*. Surjeet Publications, 2022.
- Goudar, M. A. *Bharatada Krishi mattu Udyamashilathe*, Navakarnataka Publications, 2019.
- Hussain, Majid. *Geography of India*. McGraw-Hill Education, 2023.
- Ranganath, Dr. *Bharata Bhugola (Geography of India – Kannada)*. Vidyanidhi Publications, Gadag, 2020.
- Sharma, P. D. *Ecology and Environment*. Rastogi Publications, 2021.
- Sharma, T.C. *Economic and Commercial Geography of India*. Vikas Publishing, 2018.
- Shinde, R. S. *Bharata Bhugola mattu Arthika Bhugola (Kannada)*. Sapna Book House, 2021.
- Singh, Jagdish. *India: A Comprehensive Geography*. Gyanodaya Prakashan, 2022.
- Singh, R. L. *India: A Regional Geography*. National Geographical Society of India, 2011.
- Srivastava, H. N., and G. S. Tomar. *Transport Geography*. Discovery Publishing House, 2021.
- Tiwari, R.C. *Geography of India*. Prayag Pustak Bhawan, 2022.
- Tyagi, B.P. *Geography of Resources*. Jai Prakash Nath & Co., 2019.

Program Name	BA / BSc in Geography		Semester	IV
Course Title	Cartographic Techniques		Practical Credits	02
Course Code	DSCGEP411		Contact Hours	39 Hours (3/week)
Formative Assessment		10 Marks	Summative Assessment	40 Marks
Course Outcomes (COs): After the successful completion of the course, the student will be able to:				
CO 1. <i>Define and describe</i> key concepts of cartography, map types, and marginal information.				
CO 2. <i>Explain and apply</i> various types of map scales including graphical constructions.				
CO 3. <i>Construct and differentiate</i> areal data representation techniques such as choropleth, flow maps, and cartograms.				
CO 4. <i>Demonstrate</i> manual map enlargement and reduction using traditional and estimation-based methods.				
CO 5. <i>Interpret</i> relief features through traditional representation techniques and <i>construct</i> manual profiles using contours and thread method.				
Exercise 1. Cartography – Principles and Evolution. Map – Meaning, Types and Marginal Information.				
Exercise 2. Scales – Concept; Representative Fraction and Verbal Scale; Conversion of Scales; Graphical Construction of Linear, Diagonal, Time, Pace and Flexible Strip Scales.				
Exercise 3. Areal Data Representation– Dot, Proportional Circles, Sphere and Block Pile, Choropleth, Isopleths, Flow Maps, Cartogram Drawing (rubber sheet or square method)				
Exercise 4. Enlargement And Reduction of Maps: Square and Triangular Method; Pantograph Use; Freehand Rescaling – practice using estimation and proportional division				
Exercise 5. Relief Features – Traditional Methods: Pictorial (Hill Shading, Hachures); Mathematical (Spot Heights, Benchmarks, Trig Points); Composite (Contours and Layer Tinting); Contours: Characteristics, Interpretation, and Profile Drawing; Manual Construction of Transect Profiles using Thread Method				

References	
1.	Anson, R. & Ormeling, F.J. – International Cartographic Manual
2.	Crampton, Jeremy W. <i>Mapping: A Critical Introduction to Cartography and GIS</i> . Wiley-Blackwell, 2010.
3.	Field, Kenneth. <i>Cartography</i> . Esri Press, 2018.
4.	Keates, J.S. – Understanding Maps, Longman
5.	Kimerling, Jon, et al. <i>Map Use: Reading, Analysis, Interpretation</i> . 8th ed., Esri Press, 2020.
6.	Mishra, R.P. <i>Fundamentals of Cartography</i> . Concept Publishing Company, 1982.
7.	Monkhouse, F.J., and H.R. Wilkinson. <i>Maps and Diagrams</i> . Methuen & Co., 1971.
8.	Raisz, Erwin. <i>General Cartography</i> . McGraw-Hill Book Company Inc., 1962.
9.	Ranganath, B. – Cartography and Surveying, Vidhyanidhi Prakashana (Kannada & English)
10.	Robinson, Arthur H., et al. <i>Elements of Cartography</i> . 6th ed., Wiley, 1995.
11.	Sarkar, A. <i>Practical Geography: A Systematic Approach</i> . Orient BlackSwan, 2015.
12.	Singh, R. L. <i>Elements of Practical Geography</i> . Student's Friends, Allahabad.
13.	Slocum, Terry A., et al. <i>Thematic Cartography and Geovisualization</i> . 4th ed., Pearson, 2022.
14.	Tyner, Judith A. <i>Principles of Map Design</i> . 2nd ed., Guilford Press, 2019.

Formative Assessment for Theory	
Assessment type	Marks
Sessional Tests	10
Seminars / Presentations / Assignment / Case study / Field-Study / Project work etc.	10
Total	20 Marks

Formative Assessment for Practical	
Assessment type	Marks
Sessional Tests-1/Lab Activity	05
Case study / Field-Study / Project work etc.	05
Total	10 Marks

Program Name	BA / BSc in Geography	Semester	IV
Course Title	(Elective 1) Introduction to Indian Geography		
Course Code:	ELGE 4.1	No. of Credits	2
Contact hours	28 Hours (2/week)	Duration of SEA/Exam	1.5 hours
Formative Assessment Marks	10	Summative Assessment Marks	40

Course Outcomes (COs): After the successful completion of the course, the student will be able to:

CO 1. *Describe* the physical features of India including relief, drainage, soils, forests, and climate.

CO 2. *Differentiate* the types and distribution of major crops, irrigation methods, and evaluate the importance of river valley projects.

CO 3. *Classify* mineral resources and *examine* the locational factors influencing the development of Indian industries

CO 4. *Interpret* the development and distribution of transportation networks and major ports across India.

CO 5. *Assess* the spatial patterns of population, urbanization, and the challenges related to urban growth

Syllabus	28 Hrs
Physical Setting - Location and Extent, Relief Features, Drainage System and Climate. Soil – Types and Distribution; Forest Resources – Types and Conservation; Animal Conservation.	7
Agriculture - Food Crops – Paddy and Wheat, Commercial Crops- Cotton and Sugarcane, Plantation Crops- Coffee and Tea; Major River Valley Projects – DVC, Bhakra Nangal, Hirakud; Irrigation Types and Distribution	7
Minerals and Industries - Iron ore, Manganese, Gold and Copper; Coal and Petroleum; Growth, Development and Locational Factors of Industries - Iron and Steel, Aluminium, Cotton, Sugar, Cement Industry.	7
Transportation and Population - Distribution of Roadways, Railways, Airways and Waterways; Major ports and Harbours; Growth, Density and Distribution of Population; Urbanisation and Problems.	7

References
1. Bhat, L. S. <i>Regional Planning in India</i> . Statistical Publishing Society, 2023.
2. Chand, Mahesh, and V. K. Puri. <i>Regional Planning in India</i> . Allied Publishers, 2020.
3. Dixit, R.S. <i>Economic Geography: A Study of Resources</i> . Rawat Publications, 2020.
4. Gopal Singh. <i>Map Work and Practical Geography</i> . Surjeet Publications, 2022.
5. Goudar, M. A. <i>Bharatada Krishi mattu Udyamashilathe</i> , Navakarnataka Publications, 2019.
6. Hussain, Majid. <i>Geography of India</i> . McGraw-Hill Education, 2023.
7. Ranganath, Dr. <i>Bharata Bhugola (Geography of India – Kannada)</i> . Vidyandhi Publications, Gadag, 2020.
8. Sharma, P. D. <i>Ecology and Environment</i> . Rastogi Publications, 2021.
9. Sharma, T.C. <i>Economic and Commercial Geography of India</i> . Vikas Publishing, 2018.
10. Shinde, R. S. <i>Bharata Bhugola mattu Arthika Bhugola (Kannada)</i> . Sapna Book House, 2021.
11. Singh, Jagdish. <i>India: A Comprehensive Geography</i> . Gyanodaya Prakashan, 2022.
12. Singh, R. L. <i>India: A Regional Geography</i> . National Geographical Society of India, 2011.
13. Srivastava, H. N., and G. S. Tomar. <i>Transport Geography</i> . Discovery Publishing House, 2021.
14. Tiwari, R.C. <i>Geography of India</i> . Prayag Pustak Bhawan, 2022.
15. Tyagi, B.P. <i>Geography of Resources</i> . Jai Prakash Nath & Co., 2019.

Formative Assessment for Theory	
Assessment type	Marks
Sessional Tests	5
Seminars / Presentations / Assignment	5
Total	10 Marks

Program Name	BA / BSc in Geography	Semester	IV
Course Title	(Elective 2) Introduction to World Regional Geography		
Course Code:	ELGE 4.2	No. of Credits	2
Contact hours	28 Hours (2/week)	Duration of SEA/Exam	1.5 hours
Formative Assessment Marks	10	Summative Assessment Marks	40

Course Outcomes (COs): After the successful completion of the course, the student will be able to:

CO 1. *Identify and describe* major physical features and climatic regions of the world using Koppen's classification.

CO 2. *Classify* global vegetation types, soils, and agricultural patterns and *analyse* their spatial distribution.

CO 3. *Examine* the factors influencing the distribution of industries and transportation routes across the globe.

CO 4. *Evaluate* global population trends, distribution, urbanisation patterns, and associated challenges like slums.

CO 5. *Interpret* global interlinkages of river systems, trade routes, and urban centres with reference to economic geography.

Syllabus	28 Hrs
Physical Setting - Major Mountains, Plateaux and Plains. Major Climatic Regions of the World, Based on Koppen's Classification. Major River Systems of the World.	7
Resources - Natural Vegetation - Types and Distribution; Soils – Types and Distribution; Agriculture - Influencing Factors, Types and Distribution. Major Crops and Distribution.	7
Industry and Transportation - Industrial Regions of the World - Factors of Industrial Concentration; Major Railway Routes, Waterways; Canals – Suez and Panama; Major Ports and Sea Routes.	7
Population and Urbanisation – Population - Growth, Distribution and Density; Problems of Population; Evolution of Cities; Major Metropolitan Cities and Megalopolis of the World. Urbanisation and Problems; Slums.	7

References
<ol style="list-style-type: none"> 1. Jackson, Peter. <i>Global Geography: Places and People in a Globalised World</i>. Routledge, 2021. 2. Blij, Harm J. de, and Peter O. Muller. <i>Geography: Realms, Regions and Concepts</i>. 18th ed., Wiley, 2022. 3. Fellmann, Jerome D., et al. <i>Human Geography: Landscapes of Human Activities</i>. 14th ed., McGraw Hill, 2023. 4. Bradshaw, Michael, and Joseph Dymond. <i>World Regional Geography: Global Patterns, Local Lives</i>. 8th ed., McGraw Hill, 2022. 5. Clawson, Marion. <i>World Agricultural Regions and Their Problems</i>. The World Bank Publications, 2020. 6. Ramesh, D. S. <i>Vishwa Bhugola mattu Pramukha Parisaragala Viniyoga</i>. Sapna Book House, 2021. (Kannada) 7. Pradeep, B. <i>Vishwa Bhugola: Pramukha Shaktikendra Mattu Vikasashiladeshagalu</i>. Navakarnataka Publications, 2023. (Kannada) 8. Dhar, S. C. <i>Population Geography of the World</i>. Mittal Publications, 2020. 9. Dutta, R. L. <i>Economic Geography: Resources and Development of the World</i>. Rajat Publications, 2021. 10. Murthy, H. V. <i>Jagathika Nagarikarana mattu Janasankhye Samasyegalu</i>. Vidyanidhi Prakashana, 2023. (Kannada)

Formative Assessment for Theory	
Assessment type	Marks
Sessional Tests	5
Seminars / Presentations / Assignment	5
Total	10 Marks