

JAI NARAIN VYAS UNIVERSITY, JODHPUR
Department of Geography

SEC syllabus B.A, B.Sc. four year (NEP-2020)

B.A./B.Sc.. 1st Semester (Session 2026-27)

NHE QF Level	Se m	Cour se Type	Course Code	Course Title	L	P	H/ W	Total Hours	Credits	Total Credits	Marks		
											C. A.	EoS E	Total
4.5	I	SEC	09/GEO/SEC/101/T	Elementary Cartography	L	-	3	45	3	3	15	60	75

B.A./B.Sc.. 2nd Semester (Session 2026-27)

NHE QF Level	Se m	Cour se Type	Course Code	Course Title	L	P	H/ W	Total Hours	Credits	Total Credits	Marks the syllabus		
											C. A.	EoS E	Total
4.5	II	SEC	09/GEO/SEC/151/T	Map Reading & Interpretation	L	-	3	45	3	3	15	60	75

B.A./B.Sc.. 5th Semester (Session 2028-29)

NHEQ F Level	Se m	Course Type	Course Code	Course Title	L	P	H/ W	Total Hours	Credits	Total Credits	Marks		
											C. A.	EoS E	Total
5.5	V	SEC	09/GEO/SEC/301/T	Applied Geography	L	-	3	45	3	3	15	60	75


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Undergraduate Programme (Geography) Syllabus, Semester- I	
Session 2026-27	
Part-A Introduction	
Subject	Geography
Semester	I
Name of the Course	Elementary Cartography
Course Code	01/GEO/SEC/101/T
Course Type:	SEC
Level of the course (As per Annexure-I)	100-199
Pre-requisite for the course (if any)	NA
Course Learning Outcomes (CLO)	After completing the course: CLO 1: Fundamentals of Cartography and Map Reading • Understand the meaning, scope, and importance of cartography. • Identify different types of maps (topographical and thematic). • Explain basic components of maps such as scale, direction, symbols, and legend. • Develop skills in map reading and interpretation. CLO 2: Map Scale and Measurement • Understand the concept and types of map scales (statement, RF, graphical). • Perform conversion between different types of scales. • Measure distance and area accurately on maps. • Apply techniques for enlargement and reduction of maps. CLO 3: Representation of Geographical Data • Understand methods of data representation using graphs: ○ Line graphs


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		○ Bar diagrams ○ Pie diagrams • Apply basic thematic mapping techniques (dot map, choropleth, diagrammatic maps). • Understand principles of data classification and presentation. • Interpret graphical and thematic data for geographical analysis. CLO 4: Relief Representation and Interpretation • Understand different methods of relief representation: ○ Contours ○ Hachures ○ Shading ○ Spot heights • Interpret contour maps for slope, landforms, and drainage patterns. • Analyze terrain features using cartographic techniques. • Develop skills in topographical analysis. CLO 5: Modern Cartography and Applications • Understand basics of digital mapping and modern cartography. • Explain the fundamentals of GIS and remote sensing. • Analyze applications of cartography in: ○ Planning ○ Resource management ○ Geographical analysis • Evaluate the role of modern tools in decision-making and spatial analysis.
Credits		3
Total Marks		15+60=75
Part-B Contents of the Course		
Total lecture per week		3
Units	Topics	No. of Lecture/Contac


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		t Hours
I	Cartography—meaning, scope and importance; types of maps (topographical and thematic); basic components of a map—scale, direction, symbols and legend; introduction to map reading and interpretation.	9
II	Map scale—concept and types (statement, representative fraction and graphical scale); conversion of scales; measurement of distance and area on maps; enlargement and reduction of maps.	9
III	Representation of geographical data—simple graphs (line, bar and pie diagrams); basic thematic mapping techniques (dot map, choropleth and diagrammatic maps); principles of data classification and presentation.	9
IV	Relief representation—methods of showing relief (contours, hachures, shading and spot heights); interpretation of contour maps; identification of slope, landforms and drainage patterns from maps.	9
V	Introduction to modern cartography—basics of digital mapping; introduction to GIS and remote sensing; importance of cartography in planning, resource management and geographical analysis.	9

Part-C Learning Resources

1. Monkhouse, F.J. & Wilkinson, H.R.: Maps and Diagrams, Methuen, London.
2. Robinson, A.H.: Elements of Cartography, John Wiley & Sons, New York.
3. Mishra, R.P. & Ramesh, A.: Fundamentals of Cartography, Concept Publishing, New Delhi.
4. Singh, R.L. & Dutt, P.K.: Elements of Practical Geography, Kalyani Publishers.
5. Sarkar, A.: Practical Geography: A Systematic Approach, Orient Longman.
6. Raisz, E.: General Cartography, McGraw Hill, New York.
7. Khan, Z.A.: Textbook of Practical Geography, Concept Publishing, New Delhi.
8. Survey of India: Manuals on Topographical Maps and Cartographic Techniques.
9. ISRO/NRSC: Introductory materials on GIS and Digital Cartography.
10. Journal: Cartographic Journal (Selected Articles).


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Undergraduate Programme (Geography) Syllabus, Semester-II	
Session 2026-2027	
Part-A Introduction	
Subject	Geography
Semester	II
Name of the Course	Map Reading & Interpretation
Course Code	09/GEO/SEC/151/L
Course Type:	SEC
Level of the course (As per Annexure-I)	100-199
Pre-requisite for the course (if any)	NA
Course Learning Outcomes (CLO)	After completing the course: CLO 1: Basics of Maps and Representation - Understand different types of maps, their scale, and content. - Explain methods of representation of point, line, and area features on maps. - Apply cartographic principles in map construction and interpretation. CLO 2: Thematic Mapping - Understand the concept and significance of thematic maps. - Identify different types of thematic maps. - Apply appropriate techniques for representation of spatial data. - Interpret thematic maps for geographical analysis. CLO 3: Latitude, Longitude and Time - Understand the concept of latitudes and longitudes. - Determine location on maps using geographic coordinates. - Explain Greenwich Mean Time (GMT) and local time. - Calculate time differences based on longitude. CLO 4: Map Reading and Design - Develop skills in map reading and interpretation. - Understand principles of map design, layout, and typography. - Apply cartographic techniques for effective map presentation. - Evaluate maps based on accuracy and clarity.


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		CLO 5: Interpretation of Geospatial Data - Interpret topographical maps for physical and cultural features. - Analyze satellite imageries and aerial photographs. - Apply interpretation techniques for thematic mapping. - Develop skills in spatial analysis using geospatial data.
Credits		3
Total Marks		15+60= 75
Part-B Contents of the Course		
Total lecture per week		3
Units	Topics	No. of Lecture/Contact Hours
I	Maps: Types, scale and content, representation of point, line and area in maps	9
II	Thematic mapping: Concept and types	9
III	Latitudes and Longitudes: determination of location on maps. GMT and local time determination.	9
IV	Map reading; map design, layout and typography.	9
V	Techniques of interpretation of Topographical maps, satellite imageries and aerial photographs for thematic mapping.	9
Part-C Learning Resources		
- Anson R. and Ormelling F. J., 1994: International Cartographic Association: Basic Cartographic Vol., Pergaman Press. - Gupta, K.K. and Tyagi, V.C., 1992: Working with Map, Survey of India, DST, New Delhi - Monkhouse, F.J. and Wilkinson, H.R., 1973: Maps and Diagrams, Methuen, London. - Singh R. L. and Singh R. P. B., 1999: Elements of Practical Geography, Kalyani Publishers - Sarkar, A. (2015) Practical Geography: A Systematic Approach. Orient Black Swan Private Ltd., New Delhi		


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Undergraduate (Honours) Programme (Geography) Syllabus, Semester-V	
Session 2028-2029	
Part-A Introduction	
Subject	Geography
Semester	V
Name of the Course	Applied Geography
Course Code	09/GEO/SEC/301/T
Course Type:	SEC
Level of the course (As per Annexure-I)	300-399
Pre-requisite for the course (if any)	NA
Course Learning Outcomes (CLO)	After successful completion of the course, students will be able to: CLO–1 (Concept of Geographical Co-ordinates) - Understand the concept of geographical coordinates including latitude and longitude. - Explain the role of parallels, meridians, International Date Line, and time systems. -Apply these concepts to locate places and determine time differences. CLO–2 (Maps) - Identify different types of maps and their uses. -Understand and apply map scales (RF, statement, graphical). -Interpret various diagrammatic representations like bar, circle, and sphere diagrams. CLO–3 (Map Projection) - Understand the concept and types of map projections. -Analyze their properties and uses. -Select appropriate projections for different geographical purposes. CLO–4 (Interpretation of Toposheets and Weather Maps) - Develop skills to interpret toposheets and weather maps. -Analyze physical and climatic features from maps. -Draw conclusions based on map-based information. CLO–5 (Geographical Information System) - Understand the concept and components of GIS.


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	-Explain the role of aerial photography and remote sensing. -Apply modern techniques for geographical analysis and data interpretation..	
Credits	3	
Total Marks	15+60=75	
Part-B Contents of the Course		
Total lecture per week	3	
Units	Topics	No. of Lecture/Contact Hours
I	Concept of Geographical Co-ordinates: Latitude, Longitude, Parallels and Meridians, International Date Line, Standard Time & Local Time	9
II	Maps :Types of Maps, Map Scale: RF, Statement and Graphical, Types of Diagrams: Bars, Circles, Spheres	9
III	Map Projection: Types, Properties, Use	9
IV	Interpretation of Toposheets and Weather Maps	9
V	Geographical Information System: Concept & Components; Aerial Photography and Remote Sensing techniques in Geography.	9
Part-C Learning Resources		
1. Singh, R. N. and Kanaujia L. R. S., Map Work & Practical Geography, Central Book Depot, Allahabad. 2. Mishra, R. P. and A. Ramesh, Fundamentals of Cartography, Concept Publishers, New Delhi. 3. शर्मा, जे.पी. प्रायोगिकभूगोल, रस्तोगीप्रकाशन, मेरठ 4. जैन, शेषमलप्रयोगात्मकभूगोल, साहित्यभवन, आगस 5. भल्ला, आर. एल. प्रायोगात्मकभूगोल, के.हीप्रकाशन, अजमेर 6. .मामोरिया, चतुर्भजमानचित्रविज्ञानएवंप्रायोगात्मकभूगोल, साहित्यभवन, आगरा		


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