

<b>M.A./M.Sc. (CBCS Program)</b>	
<b>First Semester</b>	
<b>Subject - Geography</b>	
<b>Code of the Course</b>	GEG8001P
<b>Title of the Course</b>	REPRESENTATION OF SOCIO-ECONOMIC DATA
<b>Qualification Level of the Course</b>	NHEQF Level 6.5
<b>Credit of the course</b>	4
<b>Type of the course</b>	Discipline Centric Core Practical Course in Geography
<b>Delivery type of the course</b>	Practical (80+40). The 80 hours for content delivery include hands-on exercises, and 40 hours of diagnostic assessment, formative assessment, and subject/ class activity, problem solving.
<b>Prerequisites</b>	Geography of Graduate level
<b>Co- requisites</b>	None
<b>Objective of the Course</b>	This is the basic course and sub discipline of Geography, This paper includes the various diagrammatic and graphical methods of data representation.
<b>Learning outcomes</b>	<ul style="list-style-type: none"> <li>• It introduces the basic concepts of data collection and representation.</li> <li>• It discusses the types of one, two and three dimensional diagrams for data representation.</li> <li>• It elaborates various graphs and cartograms for the representation of data.</li> </ul>
<b>Syllabus</b> पाठ्यक्रम	
<b>UNIT-I</b>	<p>Data Collection: Introduction, Types of data and Methods of data collection, Scales of measurement and data organisation. Meaning of Diagram &amp; Graph. General rules for constructing diagrams &amp; graphs.</p> <p>आंकड़ों का संग्रहण: परिचय, आंकड़ों के प्रकार और आंकड़े एकत्रण की विधियां । मापन के पैमाने/ स्तर एवं समकों का व्यवस्थापन । आरेख एवं</p>

	आलेख का अर्थ । आरेख एवं आलेख निर्माण के सामान्य नियम ।
<b>UNIT-II</b>	<p>One Dimensional Diagram: Line Diagram, Bar Diagram (Simple, Multiple, Compound and Duo-Directional) and Pyramid Diagram (Simple, Superimposed and Compound).</p> <p>एकविमीय आरेख: रेखीय आरेख, दंड आरेख (सामान्य आरेख, बहुगुणी दण्ड आरेख, मिश्रित दण्ड आरेख और द्विदिशा दण्ड आरेख) और पिरामिड आरेख (सरल, मिश्रित, अध्यारोपित) ।</p>
<b>UNIT-III</b>	<p>Two Dimensional Diagram: Unit Square Diagram, Square Block Diagram, Rectangular Diagram (Simple &amp; Divided), Wheel Diagram and Ring Diagram.</p> <p>द्विविमीय आरेख: इकाई वर्ग आरेख, ब्लॉक वर्ग आरेख, आयताकार आरेख (साधारण एवं विभाजित), चक्र आरेख एवं वलय आरेख ।</p>
<b>UNIT-IV</b>	<p>Three Dimensional Diagrams: Spherical Diagram, Cube Diagram and Block-Pile Diagram.</p> <p>त्रिविमीय आरेख: गोलीय आरेख, घन आरेख एवं ब्लॉक पुंज आरेख ।</p>
<b>UNIT-V</b>	<p>Graphical Representation and interpretation: Simple Linear Graph, Poly Linear Graph, Band Graph, Histogram, Frequency Polygon, Cumulative Frequency Polygon (Ogive), Geddis's Ergograph and Lorenz curve &amp; Gini coefficient. Ternary /Triangular Diagram, Scatter Diagram.</p> <p>Cartogram: Isochrones &amp; Traffic Flow Cartogram. Nearest Neighbour Analysis.</p> <p>आलेखी निरूपण एवं व्याख्या: साधारण रेखिक आलेख, बहु रेखिक आलेख, पट्टीका आलेख, आयत चित्र, आवृत्ति बहुभुज, संचयी बारंबारता वक्र, गेडिस का आर्गोग्राफ, लॉरेज वक्र एवं गिनी गुणांक । त्रिकोणाकार आरेख, प्रकीर्ण आरेख ।</p> <p>मानारेख: समकालिक मानारेख एवं यातायात परिणाम मानारेख, निकटतम पड़ोसी विश्लेषण ।</p>
<b>Exercises</b> <b>अभ्यास</b>	
	<p>Use latest relevant data from Government sources to draw the following:</p> <ol style="list-style-type: none"> <li>1. Drawing of Line Diagram.</li> <li>2. Drawing of Simple Bar Diagram.</li> <li>3. Drawing of Multiple Bar Diagram.</li> </ol>

	<ol style="list-style-type: none"> <li>4. Drawing of Compound Bar Diagram.</li> <li>5. Drawing of Duo-Directional Bar Diagram.</li> <li>6. Drawing of Simple Pyramid Diagram.</li> <li>7. Drawing of Superimposed Pyramid Diagram.</li> <li>8. Drawing of Compound Pyramid Diagram.</li> <li>9. Drawing of Unit Square Diagram.</li> <li>10. Drawing of Square Block Diagram.</li> <li>11. Drawing of Simple Rectangular Diagram</li> <li>12. Drawing of Divided Rectangular Diagram</li> <li>13. Drawing of Wheel Diagram.</li> <li>14. Drawing of Ring Diagram.</li> <li>15. Drawing of Spherical Diagram.</li> <li>16. Drawing of Cube Diagram.</li> <li>17. Drawing of Block-Pile Diagram.</li> <li>18. Graphical Representation of Data by Simple Linear Graph.</li> <li>19. Graphical Representation of Data by Poly Linear Graph.</li> <li>20. Graphical Representation of Data by Band Graph.</li> <li>21. Graphical Representation of Data by Histogram.</li> <li>22. Graphical Representation of Data by Frequency Polygon.</li> <li>23. Graphical Representation of Data by Cumulative Frequency Polygon (Ogive).</li> <li>24. Graphical Representation of Data by Geddis's Ergograph.</li> <li>25. Graphical Representation of Data by Ternary /Triangular Diagram.</li> <li>26. Graphical Representation of Data by Scatter Diagram.</li> <li>27. Drawing of Isochrones.</li> <li>28. Drawing of Traffic Flow Cartogram.</li> <li>29. Nearest Neighbour Analysis.</li> </ol>
<b>Suggested Readings</b> <b>सहायकग्रन्थ / सामग्री</b>	
<b>Text Books</b>	<ol style="list-style-type: none"> <li>1. Mishra, R.N. and Sharma, P.K., Practical Geography Methods and Techniques, Pareek Publication, Jaipur 2023.</li> <li>2. Khullar, D.R., Essentials of Practical Geography, New Academic publication, Jalandhar 2000.</li> <li>3. Singh, R.L., Elements of Practical Geography, Kalyani Publication, New Delhi.</li> <li>4. Khan, M.Z.A., Text Book of Practical Geography, New Delhi</li> </ol>

	<p>1998.</p> <p>5.Sarkar, A.K., Practical Geography-A Systematic Approach, Oriental Longman, Calcutta, 1997.</p> <p>6. जे.पी. शर्मा, प्रायोगिक भूगोल, रस्तोगी प्रकाशन, मेरठ, 2016.</p> <p>7.आर.एन. मिश्राएवंपी. के. शर्मा, प्रायोगिक भूगोल, राज पब्लिकेशन नईदिल्ली, 2019.</p> <p>8.डी. आर. खुल्लर, प्रायोगिक भूगोल, कल्याणी पब्लिकेशन, 2019.</p> <p>9. डॉ. बी.सी. जाट, प्रायोगिक भूगोल, पंचशील प्रकाशन, जयपुर, 2020.</p> <p>10. इन्द्रपाल एवं माथुर, मानचित्र प्रक्षेप. राजस्थान हिन्दी ग्रंथ अकादमी, 2017.</p>
<b>Reference Books</b>	<p>1. Robinson, A.H. et.al, Elements of Geography, John Willey and Sons, U.S.A., 1995.</p> <p>2. Monkhouse, E.J. and Wilkinson, H.R., Map and Diagrams, Lethuen, London 1994</p>
<b>Suggested E-resources</b>	-----