

M.A./M.Sc. Geography
Second Semester
Skill-I (M2GEOG1-SKILL-01) Digital Cartography

Unit-I: Introduction

- a) Nature & Scope
- b) Concepts in Digital Cartography
- c) Cartographic Visualization
- d) Geo-visualization

Unit II: Overview of Software Packages

- a) ArcGIS
- b) QGIS
- c) Microsoft Excel, SPSS
- d) AUTOCAD

Unit-III: Maps

- a) Introduction to maps: types
- b) Cartographic communication – virtual, cognitive, temporal and permanent maps
- c) Mapping techniques: preparation of dot, choropleth, isopleths chorochromatic and choroschematic maps
- d) Map composition: symbolization, map layout, labeling and annotation

Unit IV: Diagrams

- a) Construction of simple line, poly line, trend graphs
- b) Construction of simple, multiple, compound bar diagrams, histograms
- c) Construction of cartograms, value area cartograms
- d) Preparation of maps using proportional squares, circles, spheres

Unit V: Cartographic Modeling

- a) Cartographic modeling and its types
- b) 3D modeling
- c) TIN
- d) DEM

Lab exercises

- a) Preparation and editing of data in microsoft excel
- a) Preparation and editing of data in SPSS
- b) Generation of vector point, line, polygon map and cartographic symbolization
- c) Map composition

References

1. Allpress, J.D., Visual geography, Part-I [George Harrap]
2. Bagrew, L.: History of Cartography, C.A.Watts and Co., London, 1964.
3. Barrett, E.C. and Curtis, L.F.: Introduction to Environmental Remote Sensing, Chapman and Hall Ltd., London, 1976.