

Course Objective

To train students in basic concepts of mapping, map reading, geodesy and coordinate systems used in GIS/RS practical exercises.

Learning Outcome

On completion of this course the students will be able to read, calculate, identify the projections needed for the GIS mapping.

Course Outline

1. Introduction

- Computer mapping
- Displays
- Cartography today

2. Basic Characteristics of Map

- Concept
- Need for maps
- Types of maps

3. Scale References

- Map scale
- Scale Representation

4. Map Projections

- Geographic coordinate system
- Metric coordinate system
- Direction of map

5. Data Models for Digital Cartographic Information

- Topographic sheets
- Marginal information
- Spatial data
- Attribute data
- Data transformation
- Map production

Recommended Books

1. Abrams, J. and Hall, P. (2006) "Else/Where: Mapping — New Cartographies of Networks and Territories". University of Minnesota Design Institute, Minnesota.
2. Brewe, A. C. (2005) "Designing Better Maps: A Guide for GIS Users". ESRI Press. P. 220.
3. Ehrenberg, R. E. (2005) "Mapping the world: An illustrated history of cartography". National Geographic.
4. Shaheen, F. (1998): "A New Geography Book on Map Work and Field Work". A.H. Publishers, Lahore.
5. Strahler, A. and Strahler, A. (1994) "Introduction to Physical Geography". John Wiley & Sons, Inc. New York.
6. Maginr, D. J. (1991) "Geographic Information System". Longman, London.
7. Carey, H. H. (1983) "How to use maps and globe". Franklin Watts, London.
8. Singh, R.L. (Latest edition) "Elements of Practical Geography". Kalyani Publisher, New Delhi.
9. Dink, P. (latest edition): "Map Work". Atma Ram and sons, New Delhi.