

SEMESTER-III

GEOG. 668:

MAPS AND AIR-PHOTOS INTERPRETATION

3(2-1)

Course Objectives

This course is designed to provide the knowledge and skills for understanding the process of map making, use of tools, identification of features and measurement of distances over the maps and to make them familiar with new technology use in map making and its use.

Learning Outcomes

The students are expected to be able to apply the techniques and principles of map design while creating and using various types of maps for locational relationships.

Course Outline

1. Introduction to Map Reading and Photogrammetry

- Nature and scope
- Numbering & grid system
- Classification

2. Topographical Maps

- External and internal information
- Exercises

3. Physical and Cultural Feature

- Identification
- Interpretation

4. Weather Maps

- Elements
- Symbols
- Interpretation of weather maps

5. Aerial Photography

- Concept
- Elements
- Types, essentials and prerequisites and
- Evolution.

6. Geometric Properties of Photographs

- Techniques for air photos and object space
- Scale
- Displacement
- Photo coordinate system

Field Visits

Visit to Survey of Pakistan, Quetta.

Lab. Work

Map reading, identification of features, Sectional studies, preparation of weather maps, Morphometric analysis, symbolization, measurement of distances and etc. (Note. The students are required to prepare practical notebook duly signed by the concerned teacher)

Recommended Books

1. Ron Graham and Roger E. Read, (2016) “Manual of Aerial Photography”, London and Boston. Press, ISBN 0-240-51229-4

2. T. Schenk (2005) "Introduction to Photogrammetry", Department of Civil and Environmental Engineering and Geodetic Science The Ohio State University
3. R.L. Singh (1998), "Elements of Practical Geography", Kalyani Publ. Delhi.
4. Birch (1995), "Maps and Air Photos", Reading Arnold.
5. Carey, H. Helen. (1983), How to Use Maps and Globes, Franklin Watts, New York.
6. Wolf, Paul R., (1983) "Elements of Photogrammetry," McGraw Hill, New York.
7. Moffitt, Francis H., and Mikhail, (1980) "Photogrammetry", Third Edition, International Textbook Co., Scranton.