

# **GEOG. 102 MAP READING & MAP WORK**

**Credit/Hours: 3(2+1)**

## **Description**

A unique aspect of geography is that it exposes students to a wide range of techniques for helping to understand human and environmental patterns and processes. Mapmaking is the study and practice of making representations of the Earth on a flat surface.

## **Course Learning Objectives:**

This study includes everything from the gathering, evaluation and processing of source data, through the intellectual and graphical design of the map, to the drawing and reproduction of the final document. As such, it is a unique mixture of science, art and technology and calls for a variety of in-depth knowledge and skills on the part of the cartographer.

## **Course Outline**

### **I. Maps**

### **II. Types of maps**

### **III. Map Design**

- i. General Design problems
- ii. Principles of Cartographic design
- iii. Design of map symbols

### **IV. Basic Procedure and Designing of the following Maps**

- i. Thematic
- ii. Topographic
- iii. Climatic
- iv. Economic
- v. Population
- vi. Settlements
- vii. Urban Morphology

### **V. Principles of map making, reading, reproduction**

A study of the Ordnance Survey map of Pakistan and other countries under the following heads: Scale: Types and their use, Grid Reference and Indexation, Physical and Cultural feature (to be described and interpreted). Exercises in Air Photo Interpretation

## **Lab: Map Work**

### **I. Scales**

- i. Types and uses of Scales
- ii. Construction of different types of Scale

### **II. Enlargement and Reduction of Maps**

- i. Different methods of enlarging and reducing maps
- ii. Use of Pantograph and other instruments

### **III. Representation of Relief Features**

- i. Methods used for showing different relief features
- ii. Profile, Slope and Intervisibility

Each student shall submit record of all the Practical Work one week before the commencement of the Practical examination. The work of the candidates shall be examined individually.

## **Recommended Books:**

- Kraak, M.J. & Ormelling, F.J.; 1996 Cartography: Visualization of Spatial Data Longman, Harlow.
- Keats, J.S.; 1973 Cartographic Design and Production Longman, London.

- Lawrence, G.R.P.; 1971 Cartographic Methods, Methuen & Co., London.
- Bygot, J. (revised by Money); 1960 An Introduction to Map Work & Practical Geography, Tutorial Press London.
- Usil, G.W. & Hearn G.; 1947 Practical Surveying, Technical Press London.
- Threlfall, H.; 1946 A Textbook on Surveying and Leveling-Map Charles, Riffin London.
- Garnet, A.; 1935 Geographical Interpretation of Topographical Maps, London.
- Debenham, F. Exercises in Cartography, Black Blackie & Sons London.
- Monkhouse F.J. & Wilkinson, H.R. Maps and Diagrams, Methuen London.
- Riasz Erwin General Cartography, McGraw Hill New York.
- Robinson, A. N. Elements of Cartography, John Wiley New York.
- Steers, J.A. An Introduction to the Study of Map Projections, London, University of Press London.
- CAREY, H. HELEN (1983): How to Use Maps and Globes. Franklin Watts, London New York.
- DINK P. (1962): Map Work. Dehli

<b>Assessment</b>			
<b>Sr. No.</b>	<b>Elements</b>	<b>Weightage</b>	<b>Details</b>
1.	Midterm Assessment	35%	Written Assessment at the mid-point of the semester.
2.	Formative Assessment	25%	Continuous assessment includes Classroom participation, assignments, presentations, viva voce, attitude and behavior, hands-on-activities, short tests, projects, practical, reflections, readings, quizzes etc.
3.	Final Assessment	40%	Written Examination at the end of the semester. It is mostly in the form of a test, but owing to the nature of the course the teacher may assess their students based on term paper, research proposal development, field work and report writing etc.