

Department of Geography

Certificate Course In Basics of Global Positioning System

Course Introduction –

This Course will Provide fundamental information on the Global Position System i.e. GPS. Topic included are the history & development of Navigation and GPS, an overview of the technological requirements for the system, a review of how system works and a discussion of various application that can incorporate a GPS. The course will be divided into two parts. First is the theory part where the system will be discussed and a Practical Part, which will allow students the opportunity to operate GPS on field.

Aims & Objectives -

The aim of this course is to aware the students regarding the technical shift of geography subject. GPS is the developing techniques used in many disciplines. Getting a job will be easy if students are aware about the new emerging technical knowledge in Geography.

Methods of Instruction:

Weekly classroom lectures will be supplemented with audio- Visual materials and group discussion. Practical session will be conducted by performing various hand-on activities under the supervision of the instructor. Some exercise may require temporary travel off campus in personal automobiles. Every safety precaution should be considered when conduction laboratory exercise off campus

Eligibility – SYBA & TYBA (Geography)

Syllabus of the Course -

Sr. No.	Topic		Periods	
	Theory	Practical	Theory (1.5 hour)	Practical (2 Hour)
1	Introduction to GPS instrument	Introduction to GPS instrument	1	2
2	History of GPS		2	2
3	How GPS Works	Locating Positions	3	2
4	Review of Projections and Datum	Waypoints	3	2
5	Satellites	Tracks, Routes	2	2
6	Signals	MapSource CDROM	1	2
7	Receivers	Practise with GPS	2	2
8	Positioning Modes	Mission Planning, Data Dictionary	2	2
9	Differential Positioning	Differential Correction	2	2
10	Error and Biases	Class Project	2	4
11	Applications of GPS	Class Project	2	3
12	Future of GPS	Class Project	2	3
		Total	24	28
		Total	52	

Course outcomes

- To understand the fundamentals concept related to GPS, Practical knowledge to use of GPS.
- To understand the History and technical aspects of geospatial technologies.
- To understand the application of GPS.