

## **GIS- Data Development Course**

New emerging technologies like GIS and RS helps in solving complex man made world issues and touching all aspect of life. The role of a Geospatial expert is becoming more and more important in the decision making process. A practical knowledge is very crucial in order to understand the concept deeply to explore the innovative use of the technology and its application areas.

“GIS-Data Development course” provides an overview of the theoretical and practical foundations of the applied use of Geographic Information Systems (GIS). At the end of the course, you will have a working knowledge of GIS and how to apply these systems in various situations and organizational settings.

This course will introduce you to the design and development of basic GIS applications and systems. Utilizing knowledge gained in core GIS COURSES; you will develop the fundamental components of a GIS solution.

This course teaches what a GIS is and what you can do with it. Working with various components of the GIS system, you will create GIS maps, explore and analyze the data behind the maps, and apply methods to analyze your maps.

By the end of the course, you will have a solid understanding of how GIS maps and GIS tools are used to visualize real-world features, discover patterns, obtain information, and COMMUNICATE that information to others.

Geosys has designed “GIS – Data Development Course” for people with an interest in the use of applications of geospatial technologies (GIS, remote sensing) to environmental and social change issues.

Geosys Trainees will learn not only the tools of spatial analysis, but also will learn how to apply these tools to real life problems in the course of seeking solutions. The Course of Study is designed to accommodate both GIS novices and people with previous GIS experience.

## **Pre-requisites**

1. Any person with passion and who wants a career in GIS can opt for GIS-DDC Course.
2. Minimum Computer Knowledge with any qualification.
3. A fresher, who is looking to make his career in GIS analysis.
4. An Experienced Professional who wishes to switch over to GIS Profession.
5. Any GIS Professional who wishes to improve his/her skills.

## **Who should attend this course?**

Graduation/ (10+2+3) or higher degree from any discipline (Science, Geography, Geology, Environment, Disaster Management, Engineering, Computer science, Planning and architecture) with Basic computer knowledge.

## What will be achieved?

Geosys - GIS training programs are developed with an aim to give a strong theoretical foundation as well as excellent hands-on skills to prepare the participants to explore careers and meet the challenges of the GIS professional world.

1. Create spatial maps and datasets using GIS.
2. Prepare a Map Layout for any given region.
3. Creating and working with Geodatabase.
4. Displaying, symbolizing and classifying geospatial datasets.
5. Performing attribute and spatial data queries.
6. Performing spatial analysis.
7. On-screen digitizing of map data; importing coordinates.
8. Create and Use Metadata.

## Why choose this course?

If your interest goes beyond existing academic education and you want to know more about the latest technology which can boost your career then this programme is for you.

## Course Duration

1 Month

## Key Features

Geosys believes in offering integrated career orientation, continuous support rendering model and constant IT service portfolio.

1. Specially Designed Course Material
2. Tailor-made Course Curriculum
3. Domain Experts as Faculty
4. State-of-the-art Infrastructure
5. Industry Experts as Trainers
6. Affordable Fee Structure
7. Industry-centric Approach
8. World-class Teaching Methodology

## Complete curriculum

### 1. What is mapping?

In this module, we will learn – what is a Map and the Uses of Maps, How to represent features on

a map? How to read the features on a Topographic Map?

## 2. What is GIS and GIS Essentials

In this Module, we will learn – What is GIS and we will understand how maps convey Geographic Information? What are Geographic Information Elements, Key aspects of GIS and the representation of Geographic Information?

## 3. Software's used in GIS

In this Module, we will learn – The list of available Softwares in GIS and the use of the GIS Softwares in real world.

## 4. Display feature and Tabular data

In this Module, we will learn – How to display the features on a map and how to create attribute table for Point/line or Polygon features.

## 5. Georeferencing

Work with Georeferenced spatial data. In this Module, we will learn – How to Georeference the maps using Satellite Images, Top sheets and how to work with the Georeferenced spatial data.

## 6. Querying features using Logical Expressions

In this Module, we will learn – How to extract the features by giving queries using logical expressions and using wild card characters? How to build a query? How to use the Select by Attributes Menu Item and how to work with the selected features?

## 9. Find features using Spatial Relationships

This module helps us in finding the relationships between the features by using Select by Location Menu Item.

## 10. Editing spatial data

This module assists us in creating new Points, in digitizing the lines, in creating new feature Templates, in creating new polygon features, in knowing the various methods for editing the Polygon Features and in editing the vertices and segments.

## 11. Edit attribute data (Base Map)

In this task, we will work in creating a Base Map and in assigning symbology to the Base Map and How to insert the Map Elements in the Base Map?

## 12. Associate tables with joins and relates

In this task, we will work on joining different attribute tables and in relating the associated tables.

## 13. Produce maps, reports, and graphs

In this task, we will work to create graphs, and the steps involved in creating the Graphs and the Types of available graphs.

## 14. Perform spatial analysis

In this task, we will know what is Spatial Analysis? Understand the basics of GIS Spatial Analyst

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Extension, Functionality of Spatial Analyst and the usage of Spatial Analyst Toolbar.

## 15. Manage Geographic data (Geoprocessing)

In this task, we will work with the Geoprocessing tools to analyze the data by using Buffer, clip, Intersect, union, Merge and Dissolve tools.

## 16. Perform Geocoding

In this task, we will find the address of the features by creating the address locator and the composite address locator.

## 17. Automated Vectorization

In this task, we will know different types of Vectorization and will be generating vector features by using Interactive and Automatic Vectorization.

## 18. Creating Vector Data on Google Earth

In this task, we will be creating the Point/line/polygon vector data on Google Earth.

## 19. Convert data from other formats

In this task, we will convert the data from other data formats to a required format.

## 20. Parcel Editing

In this task, we will know what is a Parcel, Parcel Fabric and Parcel Editing. We will edit the Parcels using the Parcel Editing Toolbar.

## 21. Create and use metadata

In this task, we will study what are the standards to be followed in updating the metadata for a feature class; we will create and update the metadata for a feature class.

## Project work

Hands on experiences (Latest tools, techniques, Software's) from application area. Trainee will gain a Consolidated knowledge of the GIS software. Trainee can use this experience as a real time experience, as the trainee will get a real time exposure while working on the Project.

## Outcomes of GIS-DDC Course

After successfully completing this course, you will have acquired an understanding of general GIS terms and the basic functionality of GIS software suite.

1. Quickly create and Edit a GIS Map.
2. Find and organize geographic data and other GIS resources for a mapping project.
3. Accurately display features on a GIS map and efficiently access information about them.
4. Analyze a GIS map to identify where features that meet specific criteria are located.
5. Create GIS maps and analyze results so they can be viewed using desktop applications.



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## FAQ's

### Q. How much does it cost?

A. Our programs are very competitively priced and reflect the level of choice and availability of modules open to you as a Trainee.

### Q. Does Geosys offer any Projects?

A. Yes, with every course we have a sample project document along that contains complete source code.

We also provide a special course on developing Projects which will help you to learn the process involved in all the stages of data development and application development.

### Q. What is the pre-requisite to take GIS - DDC Training?

A. Any person with passion and who wants a career in GIS can opt for GIS-DDC Course.

### Q. Can I take a break between modules?

A. We appreciate that you are likely to be balancing study with other commitments such as employment and family and so we will do our best to accommodate any requests you make.

### Q. How long does it take to complete the program?

A. We have four programs. The table below illustrates the duration of each course

Program	Duration	Batch time
GIS - DDC	4 weeks	Flexible Timings
GIS - ADC	6 weeks	Flexible Timings
Web API's	2 weeks	Flexible Timings
Soft Skills	Depends on the selected Module	Flexible Timings

### Q. What could be the idle Job description, if I get selected for any company?

1. Be a Part of GIS Data Development Team.
2. Understanding Client's Requirements.
3. Be a Part of GIS data analysis Team.
4. Could be a part Maintenance project/Application support Project.

### Q. Who will clarify my doubts, if any?

A. You can post a question to [info@geosys.co.in](mailto:info@geosys.co.in). And we could provide you with the solution.