

GIS Courses Catalog:

Course Name	Course Details
ArcGIS 1: Introduction to GIS	<ul style="list-style-type: none"> ▪ Create and share a GIS map. ▪ Find and organize geographic data and other GIS resources. ▪ Accurately display features on a GIS map and efficiently access information about them. ▪ Analyze a GIS map to identify where features that meet specific criteria are located. ▪ Share analysis results so they can be viewed using desktop applications, websites, and mobile devices.
ArcGIS 2: Essential Workflows	<ul style="list-style-type: none"> ▪ Use ArcGIS to discover, use, make, and share maps and data. ▪ Create and update geographic data using editing tools. ▪ Manage, symbolize, and label map layers to optimize visualization. ▪ Create map layouts to visualize data and share analysis results. ▪ Apply the analysis workflow, geoprocessing tools, and models to solve geographic problems.
ArcGIS 4: Sharing Content on the Web	<ul style="list-style-type: none"> ▪ Identify the components of a GIS portal, and explain how portal components communicate. ▪ Prepare your content for publication. ▪ Design and build map caches to maximize performance. ▪ Publish content using hosted and enterprise implementations. ▪ Provide advanced capabilities using enterprise services. ▪ Work with feature services to enable web editing. ▪ Use published content in multiple clients.
ArcGIS Pro: Essential Workflows	<ul style="list-style-type: none"> ▪ Understand ArcGIS Pro capabilities. ▪ Use and configure the ArcGIS Pro user interface. ▪ Create and manage a project to organize all resources necessary for

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	<p>project completion.</p> <ul style="list-style-type: none"> ▪ Create and edit geographic data to maintain its accuracy. ▪ Visualize data in 2D and 3D to create maps that visualize your data in the context of location. ▪ Process and analyze data to better understand data, solve spatial problems, and make informed decisions. ▪ Share ArcGIS Pro created content across the ArcGIS platform so the content is available immediately on desktop, web, and mobile devices.
Building Geodatabases	<ul style="list-style-type: none"> ▪ Create a geodatabase structure. ▪ Access and share geographic data. ▪ Load and manage vector and raster data in a geodatabase. ▪ Create and apply spatial and attribute validation rules. ▪ Edit data using spatial and attribute validation rules.
Editing Data with ArcGIS for Desktop	<ul style="list-style-type: none"> ▪ Apply a standard editing workflow to manage updates to your GIS database. ▪ Efficiently create and edit feature geometry and attributes. ▪ Solve common data alignment issues. ▪ Maintain spatial relationships between features using topology.
Designing Maps with ArcGIS	<ul style="list-style-type: none"> ▪ Plan a cartographic project. ▪ Choose appropriate data to support cartographic needs. ▪ Create appropriate symbology, map elements, and layout designs for a map project. ▪ Create labels and annotation that are easy to read and interpret. ▪ Produce effective maps for print and web delivery.
Extending ArcGIS Pro with Add-ins	<ul style="list-style-type: none"> ▪ Understand the main programming patterns used with the ArcGIS Pro SDK for the Microsoft .NET Framework. ▪ Develop and test ArcGIS Pro SDK customizations using the add-in

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	<p>extensibility pattern.</p> <ul style="list-style-type: none"> ▪ Become familiar with the Pro API .NET assemblies accessed with the SDK.
Editing and Maintaining Parcels Using ArcGIS	<ul style="list-style-type: none"> ▪ Edit existing parcels using workflows designed for the parcel fabric. ▪ Create parcels from a variety of different data types. ▪ Adjust parcels and related layers based on existing parcels in the parcel fabric. ▪ Maintain parcels in the parcel fabric to maintain the currency of the tax map.
Field Data Collection and Management Using ArcGIS	<ul style="list-style-type: none"> ▪ Understand how the ArcGIS platform supports field data collection workflows. ▪ Create a web app for customers to request service calls. ▪ Assign work to field workers and assess their status. ▪ Create a custom navigation map with custom operational layer for searching and navigation. ▪ Navigate to a job site based on a work order. ▪ Prepare data and maps for use with mobile apps. ▪ Perform field data collection with mobile apps. ▪ Monitor the status of field operations and assets.
Geospatial Concepts for Intelligence Operations	<ul style="list-style-type: none"> ▪ Prepare/exploit available geospatial data within ArcGIS to support intelligence operations and analysis activities. ▪ Leverage analytical workflows within ArcGIS to create intelligence products for multiple areas of operations or levels of conflict.
Introduction to GIS Using ArcGIS	<ul style="list-style-type: none"> ▪ Identify appropriate data to support a mapping project. ▪ Create a map, add data to it, and symbolize map features to support the map's purpose. ▪ Share data, maps, and other content to an organizational portal.



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	<ul style="list-style-type: none"> Perform spatial analysis to obtain information about map features within an area of interest.
Image Analysis with ArcGIS	<ul style="list-style-type: none"> Apply dynamic raster processing functions to enhance raster display, prepare data for analysis, and quickly create multiple products from a single data source. Create a time-series mosaic dataset to visually identify and document areas of change. Support change detection, risk assessment, and other types of analysis by performing unsupervised, supervised, and object-oriented classification . Assess the accuracy of classification results.
Get Started with Insights for ArcGIS	<ul style="list-style-type: none"> Use Insights to visualize, display, and perform basic spatial analysis through interactive maps, charts, and table cards. Prepare data to be used for visualization and basic spatial analysis using Insights. Share results and Insights workflow history.
Portal for ArcGIS User Workflows	<ul style="list-style-type: none"> Use Portal for ArcGIS to find and access content. Use Portal for ArcGIS to create and share web maps. Use Portal for ArcGIS to create web applications using Configurable Apps and Web AppBuilder. Use maps and applications to access, modify, and create information.
Migrating from ArcMap to ArcGIS Pro	<ul style="list-style-type: none"> Migrate ArcMap-based resources to ArcGIS Pro. Apply commonly used GIS workflows using ArcGIS Pro. Use ArcGIS Pro as part of the broader ArcGIS platform.
Introduction to ArcGIS Pro for GIS Professionals	<ul style="list-style-type: none"> Define ArcGIS Pro terminology. Navigate the ArcGIS Pro user interface. Apply commonly used GIS workflows using ArcGIS Pro. Use ArcGIS Pro as part of the broader ArcGIS platform.

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Using ArcGIS for Public Safety Workflows	<ul style="list-style-type: none"> ▪ Use an approach to address concerns within the public safety sector. ▪ Manage geographic data and public safety data. ▪ Utilize a GIS to identify and map public safety trends, patterns, and problems. ▪ Disseminate information to internal and external stakeholders.
Introduction to Geoprocessing Scripts Using Python	<ul style="list-style-type: none"> ▪ Work with the ArcPy site package in ArcGIS for Desktop and PyScripter for Python. ▪ Understand commonly used ArcPy classes and functions. ▪ Incorporate cursors, use the Describe function, and use Python lists in scripts. ▪ Create geometry objects for creating and updating features and for input to geoprocessing tools. ▪ Create script tools and geoprocessing packages. ▪ Automate map document layer and layout management using ArcPy. ▪ Access resources for debugging Python code. ▪ Change table and feature schema for migrating data to new feature classes and tables.
Creating Story Maps with ArcGIS	<ul style="list-style-type: none"> ▪ Understand the skills and roles involved in creating a successful story map. ▪ Create story maps. ▪ Determine the best methods to deploy and share story maps on social media, a website, or within your organization.
Using ArcGIS for Geospatial Intelligence	<ul style="list-style-type: none"> ▪ Prepare/exploit available geospatially capable/enriched data within ArcGIS to support intelligence planning and analysis activities. ▪ Leverage ArcGIS within operational workflows to produce mission-specific products for multiple areas of operations, levels of conflict, or types of operations. ▪ Utilize ArcGIS for Defense, ArcGIS for the Military, and ArcGIS

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	<p>for Intelligence solutions to complete production, analysis, visualization, and information sharing tasks associated to industry best practices whenever possible to expedite workflows and reduce the learning curve for staff.</p>
<p>User Workflows for ArcGIS Online Organizations</p>	<ul style="list-style-type: none"> ▪ Create and style a web map. ▪ Use templates to style and configure a web app. ▪ Present web maps in Microsoft Office. ▪ Share web maps, apps, and presentations.
<p>Using ArcGIS for Water Utility Workflows</p>	<ul style="list-style-type: none"> ▪ Summarize how water utilities solutions leverage components of the ArcGIS platform. ▪ Use ArcMap to publish web services, and create a web map using feature services. ▪ Create a Foundational Viewer web app to share within an organization. ▪ Use the Water Utility Network Editing solution to edit and analyze a geometric network.
<p>Working With Geometric Networks for Utilities</p>	<ul style="list-style-type: none"> • Define a network and recognize the difference between a geometric network and network dataset • Describe how a geometric network is stored in ArcGIS Desktop • Identify and describe geometric network components <ul style="list-style-type: none"> ▪ Feature classes ▪ Logical network • List examples of geometric network analyses

Note:

- Minimum class number is 5 participants.