



Certification Exam Guide

ArcGIS Desktop Professional 10.5



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EXAM CATALOG PAGE

Title:

ArcGIS Desktop Professional 10.5

Language:

English

Duration:

2 hours

Price:

\$250

DESCRIPTION

The ArcGIS Desktop Professional exam tests the candidate's experience applying ArcGIS concepts and processes to workflows. Qualified candidates should demonstrate proficiency when applying advanced GIS concepts and knowledge to establish workflows, processes, troubleshooting non-routine issues, and skilled at defining and successfully completing complex GIS projects. Qualified candidates should have five years of applied experience, and should be proficient in best practices and uses of Esri's ArcGIS technologies.

QUALIFICATIONS

A qualified candidate should be able to perform the following tasks:

- A qualified candidate should be able to perform the following tasks:
- Apply and interpret fundamental spatial statistics and visualization techniques
- Build a reference data set and an address locator
- Build a transportation network and apply solvers
- Implement and apply Python scripting
- Perform advanced vector and raster analysis
- Perform fundamentals of geodatabase design and operate within a multi-user geodatabase
- Perform surface modeling and analysis
- Utilize advanced modeling techniques
- Identify and resolve common workflows
- Author a mosaic dataset
- Demonstrate proficiency in ArcGIS Desktop user interface and environment configuration
- Determine and define an appropriate coordinate system
- Manipulate data with Spatial Analyst, 3D Analyst, and Network Analyst extensions
- Author and publish to a web GIS portal
- Implement and apply web content or services to perform analyses
- Configure web app templates and Web AppBuilder widgets

A qualified candidate should be familiar with the following tools:

- ArcGIS Desktop (ArcCatalog, ArcMap and ArcGIS Pro)
- ArcGIS Online
- ArcGIS Enterprise
- ArcGIS Network Analyst
- ArcGIS Spatial Analyst
- ArcGIS 3D Analyst
- Python

A qualified candidate should NOT be expected to perform the following tasks:

- Deliver production quality cartographic output with specific industry solutions
- Administer a multi-user geodatabase
- Develop or administer websites
- Develop tools or apps using any SDK or API
- Network or systems administration
- Administer an ArcGIS Online organization

SKILLS MEASURED

The following list will familiarize candidates with the exam sections to help guide exam preparation. The relative weight of each section is provided to illustrate the vapproximate size of each section. Candidates should review this list and assess their knowledge of each skill. Specific preparation resources are available to assist with refreshing in areas where any knowledge gaps are found.

Data Storage

21%

- Given requirements for a specific project, determine how to design a geodatabase
- Select appropriate data formats for an intended use
- Given a task, determine the data, settings, and parameters for creating a complex data set
- Given a task, determine the data, settings, and parameters for creating an address locator
- Given a scenario, determine how to synchronize replicated data

Managing Data

26%

- Given a scenario, convert and aggregate data to an appropriate format
- Given a task, determine the necessary schema changes so that the data can support a particular operation
- Given datasets that do not align, determine the best workflow to resolve the issue
- Given a project, determine how to manage coordinate systems
- Given a scenario, determine the method to create a surface dataset
- Given a scenario, determine how to automate data management

Visualization and Sharing Data

21%

- Given a scenario, use advanced cartographic techniques to visualize content across the ArcGIS platform
- Given a scenario, determine how to optimize rendering of maps across the platform
- Given a scenario, determine how to create and render scenes
- Identify procedures to create and publish layers, maps, and apps for a given task
- Given a scenario, determine the most effective process for sharing content
- Given a scenario, determine how to automate visualization and sharing using ArcPy in ArcGIS Desktop

Analysis and Geoprocessing

31%

- Determine how to create and edit a Python script to automate a simple repetitive process in an ArcGIS workflow
- Determine how to create and edit a model in ModelBuilder to automate a complex workflow in ArcGIS for a given task
- Given a failed workflow, determine the cause of the failure
- Given user requirements, determine an appropriate method for sharing a geoprocessing model, script, package, toolbox, etc.
- Determine how to customize the user interface to perform a task
- Determine how to author tasks in ArcGIS Pro
- Given a scenario that requires an analysis, determine the workflow, data, tools, settings, and parameters to perform the analysis

A qualified candidate should be familiar with the following software:

- ArcGIS Desktop (ArcCatalog 10.5, ArcMap 10.5 and ArcGIS Pro 1.4)
- ArcGIS Spatial Analyst extension
- ArcGIS Network Analyst extension
- ArcGIS 3D Analyst extension
- ArcGIS Online
- ArcGIS Enterprise 10.5
- Python 2.7 and 3.5

PREPARATION RESOURCES

The following training resources are available to help you prepare for your exam but are not required. Please utilize this list of preparation resources with the list of “skills measured” topics so you can identify appropriate training options for any possible knowledge gaps.

Please note that completing the recommended training courses does not guarantee that you will achieve the requirements for a specific certification exam.

Esri Learning Plan

Esri ArcGIS Desktop Professional Certification 10.5

Other Online Resources

ArcGIS Desktop: Documentation