

Perform Analysis: Network Analysis, Location-allocation Analysis and Market Analysis

Level: Advanced

Suggested skills: Completion of GIS Basics module or equivalent knowledge

Duration: 11 h

To use ArcGIS Network Analyst extension, you need network dataset. You can use ready-to-use STK dataset if your university has it. If your university gets licenses via CSC you can download STK dataset [here](#) (the first section, Finnish road and street dataset by Esri Finland).

LESSONS

[ArcGIS Network Analyst: An Introduction | Esri Training Video](#)

- Duration: 1 hr
- About: This session is for newer users of ArcGIS Network Analyst, an extension designed to model road networks and solve transportation-related problems. Network Analyst is often used to route fleets of vehicles, generate service areas, and perform site selection analysis. The presenters discuss using the ArcGIS World Routing and Analysis Services, your own network analysis services, and local network datasets to solve transportation analysis problems.

EXERCISES

[Perform a Site Suitability Analysis for a New Wind Farm | Esri Training Tutorial](#)

- Duration: 1hr
- About: A Colorado-based wind energy company has hired you to identify several new sites within the state for the installation of high-efficiency wind turbines. Selecting an appropriate site is key to the success of any renewable energy project. In this lesson, you will use site suitability analysis to find the optimal location.
- Requirements: ArcGIS Online account (Approximate number of credits consumed: 5-10)

[Creating Optimized Routes Using ArcGIS Pro | Esri Training Web Course](#)

- Duration: 1 hr
- About: This course shows how to use ArcGIS Network Analyst and a network dataset to create routes that incorporate cost values such as distance or time, a set of stops, and barriers that must be avoided.
- Requirements: ArcGIS Pro 2.7, Network Analyst

[Finding the Closest Facilities Using ArcGIS Pro | Esri Training Web Course](#)

- Duration: 1 hr
- Discover the fastest way to get from here to there with ArcGIS Network Analyst. In this course, you'll learn how to find the most efficient routes between incidents and facilities.
- Requirements: ArcGIS Pro 2.7 (or later), ArcGIS Network Analyst

[Creating an Origin-Destination Cost Matrix in ArcGIS Pro | Esri Training Web Course](#)

- Duration: 1 hr
- About: Obtain a matrix that uses the best routes from multiple origins to multiple destinations with ArcGIS Network Analyst. This course shows how to create a cost matrix based on quickest travel times or shortest distances along a transportation network.
- Requirements: ArcGIS Pro 2.6 (or later), ArcGIS Network Analyst, ArcGIS Online

[Optimizing Routes for Efficient Fleet Management | Esri Training Web Course](#)

- Duration: 1 hr 30 mins
- About: Learn how to create efficient delivery/pickup routes for a fleet of vehicles with ArcGIS Pro. This course shows you how to solve vehicle routing problems (VRPs). You will create an initial set of routes, then incorporate barriers, breaks, and preferred delivery times.
- Requirements: ArcGIS Pro 2.7 (or later), ArcGIS Network Analyst

[Finding the Optimal Location of Facilities Using ArcGIS Pro | Esri Training Web Course](#)

- Duration: 1 hr 15 mins
- About: Learn how to apply a standard workflow to perform location-allocation analysis. Work with ArcGIS Pro to identify facility locations that meet your criteria, capture demand, and provide the desired level of service.
- Requirements: ArcGIS Pro 2.6 (or later), ArcGIS Network Analyst

[Generating Service Areas Using ArcGIS Pro | Esri Training Web Course](#)

- Duration: 1 hr
- About: Learn how to create data that supports informed decisions on resource allocation and facility siting. This course focuses on how to use ArcGIS Network Analyst and existing network data to easily create service areas—areas within a certain distance or travel time of a facility.
- Requirements: ArcGIS Pro 2.6 (or later), ArcGIS Network Analyst

[ArcGIS Business Analyst Pro Basics | Esri Training Web Course](#)

- Duration: 1 hr
- About: The ArcGIS Business Analyst Pro extension provides powerful tools and data that you can use to solve business-related problems and learn more about customers and markets. While ArcGIS Pro can answer a broad range of spatial questions, Business Analyst can answer questions that are specific to business applications. In this course, you will learn about everything provided with the ArcGIS Business Analyst Pro extension, how to use it to answer business-related questions, and the workflow for evaluating a site.
- Requirements: ArcGIS Pro 2.7, ArcGIS Business Analyst Pro

[ArcGIS Business Analyst Pro: Analytics | Esri Training Web Course](#)

- Duration: 2 hrs
- About: Business professionals use various tools to help answer complicated questions about patterns and relationships that exist in data. Using ArcGIS Business Analyst Pro, you can easily enrich existing GIS data and perform business-based analysis using many of the tools available in the ArcGIS Pro interface. This course introduces you to the process for performing market analysis tasks using Business Analyst Pro.
- Requirements: ArcGIS Pro 2.8, ArcGIS Online (Approximate number of service credits consumed: 10-20 (based on current service credit rates; rates subject to change)), ArcGIS Business Analyst Pro.
 - o A locally installed Business Analyst dataset
 - If you want to complete the fourth exercise, you must have a local Business Analyst U.S. Data dataset installed on your computer. For more information about how to install and connect to a dataset, see the following resources:
 - ArcGIS Business Analyst Help: [Installing Business Analyst 2020 U.S. Data](#)
 - ArcGIS Pro Help: [Connect to a locally installed country dataset](#)
 - **NOTE:** The first three exercises do not require an installed dataset.

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Jos materiaaleissa esiintyisi vakavia virheitä tai puutteita, pyydämme ilmoittamaan niistä välittömästi osoitteella: riikka.jantunen@esri.fi