## Cartography.



## Course Syllabus

#### Section 1

#### Getting Started: Let's Get Mapping

Consider the value and purpose of cartography as science and art. Get set up with ArcGIS Pro, ArcGIS Online, and exercise data. Use ArcGIS Pro to design a small-format, multiscale topographic map, using generalization tools and scale-dependent symbology. Use layouts for composition. Add contextual detail, insets, legends, and marginalia.

#### Section 3

#### The Language of Graphics

See how generalization, symbology, and color affect your story. Explore generalization techniques that reduce feature complexity for smaller-scale displays. Create a variety of thematic maps, including choropleth, proportional symbol, valueby alpha, and multivariate maps. Change symbology and use transparency in creative ways.

#### Section 5

#### Going 3D

Consider how to best use the z dimension to represent data for both reference and thematic maps. Use 3D symbology and develop a sense of when 3D adds value to your map. Build 3D scenes and vary the way features are represented using attributes and dynamic symbology.

#### Section 2

#### Maths for Map Makers

Explore how coordinate systems, transformations, and projections affect your map's message. Deal with the effects of projections and data classification methods on thematic maps. Design and publish a custom basemap in a nonstandard projection to support thematic data. Build attribute-driven symbology. Publish a multiscale web map and app.

#### Section 4

#### Labels and Composition

Learn a little about typography, label placement, and map composition. Set up a palette of label styles for different features and explore options for positioning them around other map details. Create a layout that includes a range of marginalia. Use ArcGIS expressions to define labels in innovative ways.

#### Section 6

#### Mapping Movement and Change

Use the time-aware and animation controls in ArcGIS Pro to design maps that show temporal change. Direct an animated movie to map change; add captions and dynamic overlay information; and publish in a range of popular, shareable formats. Create a display of small multiples for an infographic poster.



# Esri® MOOCE TIPS FOR SUCCESS

Esri massive open online courses (MOOCs) are engaging, educational—and most of all, fun. For the best experience:

#### **CHECK YOUR TECHNICAL SETUP**

Esri software is provided for your use during the course.

- Carefully read the Software section on the course catalog page to confirm you have any non-Esri software required and that your system meets all hardware requirements.
  - ▶ Use a desktop computer—not a smartphone or tablet.
    - ▶ Use a browser with a PDF reader plug-in installed.
      - ▶ Make sure your firewall and browser settings allow you to view embedded video files.

### STAY ON TRACK IN COURSE EXERCISES

To easily move back and forth between step-by-step exercise instructions and Esri software:

▶ Print the instructions, use two monitors, or view the instructions on a separate device.

#### **MANAGE YOUR TIME**

To earn a certificate of completion, complete all course content by the course end date.

- ▶ Plan to spend at least three hours per week on each section.
- Add the course end date to your personal calendar and set reminders to study.

#### BE AN ACTIVE LEARNER

Practice independent learning and engage with your peers.

- Complete each section during its opening week and participate in forum discussions.
- ▶ Read weekly announcements for course updates
  - ▶ When you have a question or issue, follow the steps on the course Help page.





