



GST 104: Cartographic Design Lab Series

Lab 1: Make Your Best Maps Yet

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Introduction

This lab is part of a series of lab exercises designed through a grant initiative by the National Information, Security & Geospatial Technologies Consortium (NISGTC), funded by the United States Department of Labor in partnership with the Department of Education under the Trade Adjustment Assistance Community College and Career Training Grant Program (TAACCCT).

In this lab, you will work through the iterative process of map design. You should use all of the knowledge that you have learned in previous courses and projects to complete this lab. This lab has three purposes:

1. Make your best maps yet, so that at the end of the semester you can revisit these maps to see how far you have progressed.
2. Introduce you to the benefits of iterative map design.
3. Provides the course instructor with an idea of the skill level of the students in the course.

Your instructor may require that you provide exported files, maps and/or lab reports. Please check with your instructor for the requirements specific to your class.

This lab includes the following task: Map Creation and Redesign

Objective: Make and redesign your best map yet

Use your map-making knowledge to make your best map yet. You will then redesign this map twice: once for black and white printing, and once to see what the map would look like with a different design. Rarely will your first map design be the best design possible, so it is good to get into the habit of redesigning your map at least once to see if you can improve the map design. Additionally, by redesigning your map, you will go through the important process of critically evaluating your map designs, which will strengthen your skills as a cartographer.

Lab Settings

Required Virtual Machines and Applications

Windows Machine User Account	Train
Windows Machine User Password	Train1ng\$

1 Make Your Best Map Yet

Follow the procedure below to **create 3 maps**:

1. Log into the computer, using the information provided in the Lab Settings section.
2. A collection of geospatial data has already been downloaded for you to use. The data is located on the lab machine at: *Shared Drive\GST 104\Labs 1 & 7*. You are not required to use all of the data available in the lab folder. Instead, you should pick from the available data for the files that will best show what you are trying to present. You are also welcome to use any data found in any of the other lab folders.
3. Design a *general* reference or *thematic* (dot density/choropleth/graduated symbol/flow) map of your chosen theme using up to an 8 ½" by 11" page.
4. Significantly redesign the map created in Step 2 utilizing the same theme and layout size. A successful redesign includes significant movement of some map elements (e.g. north arrow/legend/title) and changes in color, symbology, and/or data classification.
5. Redesign the map created in Step 2 or Step 3 for greyscale printing (black and white). You may need to make adjustments to symbology and other map attributes to create a readable greyscale map.
6. Write a detailed report outlining the design decisions you made when creating each map.
7. All maps that you create should respect the "Map Content Guidelines" **listed below**.

Map Content Guidelines

Each map should include at least the following elements:

- Descriptive title
- Explanatory information regarding the theme being mapped. This would include additional text, pictures, graphs, etc... that assist in explaining the information on the map.
- Metadata (name, date, data source, etc...)

Conclusion

As you will learn in this course, map design requires careful consideration of many items such as symbol choice, color choice, map element placement, media size, data selection, and labeling. It is important that you keep an open mind when creating maps and also when receiving criticism when your work is reviewed. Never be afraid to scrap a map design and start over from scratch if you are unhappy with your current progress. As part of cartography is "art," you must begin to consider map-making as an artistic, iterative process that requires constant editing and tweaking to get the best result.