Lily Jim

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Final Project Proposal

1. I will create a script that produces multiple, standardized maps using CDC data. Similar to my final project in 482, I will produce maps showing the number of deaths by firearms in the U.S. each year. The difference is that I will not manually need to change all of the settings to produce the layout of the documents (which was extremely tedious). As each map should have the same layout, the script will create map documents with the same layout, but change which data table gets attached to the layer.
2. Since there are 20 years of data, creating a new map document for each year is tedious when you want them all to look the same. Having a script that all you need to do is feed in the file name of the data table will cut down on the time spent creating every map. It will also make it easier if and when slight changes need to be made across all the maps. Theoretically, this script would also be applicable to most of the CDC's data that is requested at the state level for a single year.
3. I will use the Python Scripting for ArcGIS's exercise 10 to get familiar with the basic functions to modify map documents. I will then reference ESRI's website for the rest of the functions that I would like to use (http://desktop.arcgis.com/en/arcmap/10.5/analyze/arcpy-mapping/introduction-to-arcpy-mapping.htm). The data I will use will come from: NYU Spatial Data Repository, shapefile for the outline of North America; United States Census Bureau, shapefile for the outline of the states; and National Center for Injury

Prevention and Control (CDC), data tables containing number of deaths by firearms at the state level in the U.S. each year.

4. My deliverables are: pdf(s) of standardized maps, the script that creates them, and the files necessary to run the script.