

GEOG 485L/585L Final Examination

Due Wednesday, May 11, 2016 before midnight

*Due to Grade Submission Requirements NO Late Examinations Will be Accepted
- 0 pts will be given for submissions after midnight on Wednesday May 11th.*

Make sure to *clearly format* your writeup so that your answer's are understandable.

100 pts (20 pts./question)

As with your milestone and deep dive assignments - write up your final exam as a web page as part of your GitHub repository with your final being pushed to GitHub prior to the midnight deadline.

1. Acquire, process, and understand the data for the exam:
 - i. Download the final exam data collection from (https://github.com/UNM-GEOG-485-585/class-materials/raw/master/final-exam/final_data.zip).
 - ii. Unzip the archive.
 - iii. Place the data in your data directory on the class server.
2. Add the data to GeoServer, create *stores* and *layers*:
 - i. Add each of the layers to GeoServer through the creation of a new “store” (in your *workspace*) for each of the datasets
 - ii. Create one new “layer” for each of the stores. **Include a screenshot of each of the five new layers from the GeoServer “Layer Preview” tool in your writeup.**
3. Display any three of the GeoServer hosted layers in QGIS or ArcGIS (*as a WMS layer*) and **include screenshots of each of the three layers in your writeup.**

The GetCapabilities request for your workspace on the GeoServer instance we are using for the class is (ignore the line break):

```
http://geog485.unm.edu:8080/geoserver/<your workspace name>  
/wms?service=WMS&version=1.1.1&request=GetCapabilities
```

(added 5/9/2016 08:20) If you are having connection problems try replacing the hostname `geog485.unm.edu` with the IP address `129.24.65.137` of the server.

For example (again, ignore the line break):

```
http://geog485.unm.edu:8080/geoserver/s_teststudent/wms?  
service=WMS&version=1.1.1&request=GetCapabilities
```

for the “s_teststudent” workspace

4. Create a new OpenLayers web mapping client:
 - i. Include each of the five layers that you created in GeoServer in the layer picker in your mapping client
 - ii. **Embed the client in your final exam web page.**
5. Create and add styled layers to your OpenLayers client:
 - i. Create two new layers based on two of the *stores* added in 2) above.
 - ii. Create two custom styles, one for each of the two layers and make those the default style for the two new layers
 - iii. Add these two styled layers to the mapping client generated for question 4. Provide the layer names for your customized layers in your writeup.