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**GEOG 489 Programming for GIS  
Lab 7****Advance Spatial Accessibility Measurements**

Due: April 14<sup>th</sup>, 11:59:59 PM

Grading: 5 points

Late penalty: 1 point subtraction per day (No points after 5 days)

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**Introduction**

In this lab, you will advance spatial accessibility measurements by considering travel time and distance decay. In particular, you will reuse the data utilized in Lab 6 but incorporate two advancements into the measurements. Then, you will compare the result of Lab 6, which was based on travel distance, and Lab 7 and investigate how the measures of spatial accessibility can be biased under the influence of travel time and distance decay.

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**Things to be submitted:** **ENTIRE** folder that has data and Jupyter Notebook as a zip file. (GEOG489\_Lab7\_[YOUR\_NET\_ID].zip).

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**Tasks**

1. Launch CyberGISX (<https://cybergisxhub.cigi.illinois.edu/>) and create an empty Jupyter notebook (or you can reuse other notebooks created in earlier labs).
2. Copy and paste (or type) the following code into the cell you just created. This will download the lab materials from the GitHub repository to your CyberGISX environment. If you want to create a new cell, you can press 'b' on your keyboard or click Insert -> Insert Cell Below on the menu.

```
!svn checkout https://github.com/jparkgeo/GEOG489/trunk/Labs/Lab7
```

3. Navigate to the root folder of your CyberGISX environment. You will see a folder named 'Lab7'. Go inside of the folder and open 'Lab7\_Advance\_Spatial\_Accessibility\_Measurements.ipynb'.
4. Finish the tasks described in the notebook and save the notebook in your local directory for submission.  
Name schema: 'GEOG489\_Lab7\_[YOUR\_NET\_ID].ipynb'

*Done!! Please submit the deliverables to [learn.illinois.edu](https://learn.illinois.edu).*