Getting Started with GIS

Getting Started with ArcGIS: Students

Students may also use ArcGIS software free of charge for academic projects. Students cannot access ArcGIS via the Application Explorer, but can request a software DVD from Professor Catherine Riihimaki.

As soon as you know that you need to use the software, contact Dr. Riihimaki. It can take up to 3 weeks to order a DVD from the software manufacturer, so please plan accordingly.

Getting Started with ArcGIS: Faculty and Staff

If you are using a Drew-issued laptop, it is recommended that you use an Ethernet connection to access **Application Explorer**.

Connecting Your Laptop to the Network with an Ethernet Connection

1. Plug your Ethernet cable (blue, yellow, black, or purple network cable) into your computer and
2. Switch off the wireless switch on the front or side of your computer.
3. **Restart** your computer, and
4. Log in using the **Login to network (on campus)** option with your **uLogin** credentials. You should always use this login option any time you are on campus, regardless of how you are connecting to the network.

This process will insure that you have a stable connection with enough bandwidth to download the software. Once you have downloaded the software, you can restart your computer, unplug your Ethernet cable, and log in, and reconnect to the network wirelessly again.

Download ArcGIS from the Application Explorer

The Application Explorer is the repository for all supported software on campus. All software in Application Explorer is supported by Instructional Technology Services and Computing and Network Services. Downloading from this location insures a secure, virus-free download of legally licensed software.

1. Double click on the **Application Explorer** icon on your desktop.
   Application Explorer Icon

2. Inside you will see three folders. Double click on the **Install Software** folder. *Install Software *shows all the software available to you sorted in folders according to function or type.

   Application Explorer Install Software Icon

3. Once inside the **Install Software** folder, double click on the **Academic** folder at the far left.

   Application Explorer Academic Folder Icon

4. Double click on the ArcGIS 9.3 SP 1 icon. This will begin the software download to your computer.

   Application Explorer ArcGIS Installation Icon

5. During the download process, a green square with two white chevrons will appear on the icon. It may take a long time to download the software, so be prepared for this. You can still work with other programs while the download process runs in the background.

   Downloading Indicator Icon for ArcGIS in Application Explorer

6. You will know the process is complete when the icon returns to its original appearance, or if a white box with a grey X appears on the icon.

Downloading Complete Indicator Icon for ArcGIS in Application Explorer

It may take a long time to download the software, so be prepared for this. You can still work with other programs while the download process runs in the background.

Other GIS Programs

Google Earth

ArcGIS is an excellent tool for visualizing data spatially. If you want to simply map historic sites, or create tours and trips related to course material for your classes, you may want to consider using Google Earth. Google Earth is free and easy to use.

Download Google Earth

1. Go to http://earth.google.com/
2. Click the blue **Download Google Earth 5** button on the right hand side of the screen.

3. There is an option automatically checked that will download Google's new web browsing software, Google Chrome, along with the Google Earth software. If you do not want to download the web browser, uncheck the box next to "Include Google Chrome, a new web browser for Windows."
4. Check the **Agree and Download** button at the bottom of the screen. A popup box will appear asking if you want to save the file or cancel the download. Choose **Save file**.
5. The **Downloads** dialog box will appear and show the progress of the **GoogleEarthSetup.exe** download. The Google Earth software will either be saved to your desktop or in the **I:\YourUserName\My Documents\Downloads** folder. The icon for the software will look like this:

   Google Earth Setup Icon

6. Double-click on the icon and follow the installation wizard. You will be asked if you want to open the executable file. Click **OK**.
7. The **Open File Security** window will appear. Click **Run**. The **Google Earth Installer** will run.

8. Once it's been installed, the **Google Earth** icon will appear on your **Desktop**.

   Google Earth Desktop Icon

   For more information on how to use Google Earth, see the Google Earth Basics tutorial, available at the Drew GIS web site: http://www.drew.edu /depts/depts.aspx?id=73158

Exhibit

Exhibit is a free, online software program designed to help visualize data spatially.

http://www.simile-widgets.org/exhibit/

GIS Data Resources

Census.gov

The Census Bureau has a number of data resources freely available for public use. In addition, they offer a basic map drawing program that can be used to draw maps with census data.

http://tiger.census.gov/cgi-bin/mapsurfer?infact=2&outfact=2&act=move&tlevel=&tvar=&tmeth=i&mlat=&mlon=&msym=bigdot&mlabel=&murl=&lat=38.90340&lon=-77.02682&wid=0.045&ht=0.017&conf=mapnew.con

NJ Geo-Web

NJ Geo-Web is the New Jersey Department of Environmental Protection's geospatial data analysis web site.

http://www.state.nj.us/dep/gis/geowebsplash.htm

GIS Instructional Resources and Tutorials

There are a number of free resources available for training and finding data to use in ArcGIS and Google Earth.

ESRI Training Courses and Classroom Resources

ESRI is the company that writes and maintains the ArcGIS software suite. They offer a number of free courses, as well as fee-based tutorials for more advanced work with ArcGIS software. ESRI also hosts a user-generated library of tutorials suitable for classroom use.

Finding GIS Courses from ESRI

1. To find a course, click on the link: http://training.esri.com/gateway/index.cfm
2. Under **Search By**, click on the **Course Recommendations** link.Under **What do you want to learn about?** Choose a category. If you want a basic tutorial on ArcGIS, choose the option "Fundamental GIS and ArcGIS Concepts."
3. Next, choose **GIS for New Users Getting Started with GIS (W)**. The **W** indicates a web-based, self-paced course. This course is free of charge, but requires that you use a computer with ArcGIS software already installed.

Ready-Made, Classroom Lessons using ArcGIS

Users of ArcGIS software create exercises that teach GIS skills and often include curriculum incorporating spatial analysis. ESRI collects these user-created tutorials in its ArcLessons library.   http://edcommunity.esri.com/arclessons/arclessons.cfm

Free ESRI Press Workbooks

The basic tutorial workbooks for ArcGIS software are:

Gorr, W. a. (2008). *GIS Tutorial, Second Edition.* Redlands, CA: ESRI Press.

 and

Allen, D. (2009). *GIS Tutorial II: Spatial Analysis Workbook.* Redlands, CA: ESRI Press.

You can order free desk copies of these books for review by contacting the New Jersey area ESRI publications distributor at http://www.esri.com/about-esri/philadelphia.html