NOTE: These instructions were last validated in August 2017, so some (many?) changes may have since occurred. These instructions focus on Python 2.7 which is presently deprecated. These instructions are provided for reference and no guarantee in expressed or implied.

Windows Users' Instructions for Installing SciPy under Cygwin

(and some other helpful tools)

The following steps have been verified to work on Windows 10 (as of August 2017).

1. Download the Cygwin installer from: https://www.cygwin.com/install.html
2. Run the installer.
3. When asked the select a from the "Available Download Sites", do not pick the first one. Most people select this one, so it is slow. I suggest you pick another .edu address that is not an ftp. I personally get very good download speeds from Georgia Tech's http mirror.
4. When you are prompted to select which packages to install, some will already be selected - DO NOT change these selections. You will need to add the following to the selected packages. I have separated them by category:
   a. DEVEL
      i. gcc-core
      ii. gcc-fortran
      iii. gcc-g++
      iv. make
      v. automake
      vi. cmake
   b. LIBS
      i. libfreetype6
      ii. libfreetype-devel
      iii. python2-wx
   c. MATH
      i. libopenblas
      ii. liblapack-devel
   d. NET

           i.   openssh (optional, but recommended)

    e. PYTHON

           i.   python2

          ii.   python2-imaging

        iii.   python2-numpy

        iv.   python2-devel

    f. WEB

           i.   w3m

          ii.   wget

    g. X11

           i.   Xorgserver

          ii.   xinit

        iii.   dbus-x11

    h. EDITORS

           i.   emacs (or whatever your preferred editor may be)

5. DOUBLE CHECK TO MAKE SURE ALL THE ITEMS ABOVE ARE SELECTED. IF ANY ARE NOT INSTALLED, THE AUTOMATED SETUP IN THE NEXT STEP WILL NOT WORK.

6. Click through all the "next" buttons until the installation begins.

7. Once Cygwin is finished installing, launch a Cygwin terminal.

8. A handful of first-time startup scripts will run and then you will be presented with a command prompt.

9. Enter the following command and press <enter>:

   `w3m -dump http://www.hi5lab.org/tools/cygwin_setup.sh | bash`

10. The above command will take a VERY long time to complete. (Don't let your computer go to sleep!) This command downloads and runs a setup script that will retrieve and configure additional python libraries that you will need. You will see TONS of warning messages as the libraries are compiling. Don't worry, this is normal.

11. When the above setup script is complete, you should be ready to go!