

MAC USERS:

1. Install Xcode (If you didn't do so already earlier this semester)
<https://developer.apple.com/xcode/downloads/>
2. Click on the Apple icon on the top left of your screen -> System Preferences... -> Security & Privacy -> unlock the lock on the bottom left of panel -> Select "Allow apps downloaded from": Anywhere -> relock the lock
3. Open the mac application "Terminal": Go to a Finder window -> Applications -> Utilities -> Terminal.
4. In Terminal, run:

```
sudo xcodebuild -license
```


Open a new tab by pressing COMMAND-T and run

```
xcode-select --install
```
5. Install Macports. See "Quickstart" at <http://www.macports.org/install.php>
 - a. Skip Step 1 if Xcode is already installed.
 - b. Step 2 was done earlier
 - c. Install the appropriate version of MacPorts. You can figure out your version of Mac by clicking the Apple icon on the top left of your screen -> About This Mac
6. Install gdal and rgdal
 - a. In Terminal, open a new tab by pressing COMMAND-T and run:

```
sudo port install gdal
```
 - b. Go to <http://cran.r-project.org/web/packages/rgdal/index.html> and download
Package source: rgdal_0.9-1.tar.gz
 - c. In Terminal, open a new tab by pressing COMMAND-T and run:

```
R CMD INSTALL ~/Downloads/rgdal_0.9-1.tar.gz
```
7. Install geos and rgeos
 - a. In Terminal, open a new tab by pressing COMMAND-T and run:

```
sudo port install geos
```
 - b. Go to <http://cran.r-project.org/web/packages/rgeos/index.html> and download
Package source: rgeos_0.3-8.tar.gz
 - c. In Terminal, open a new tab by pressing COMMAND-T and run:

```
R CMD INSTALL ~/Downloads/rgeos_0.3-8.tar.gz
```
8. In R, test that both the rgdal and rgeos packages are in fact installed:

```
library(rgdal)  
library(rgeos)
```

WINDOWS USERS:

1. Install Quick Start for OSGeo4W Users: <http://trac.osgeo.org/osgeo4w/>

2. In R, type

```
install.packages("rgeos", repos="http://R-Forge.R-project.org",  
type="source")
```

Notes:

- http://tlocoh.r-forge.r-project.org/mac_rgeos_rgdal.html
- <http://www.janosgyerik.com/installing-rgdal-in-r-on-os-x-mavericks/>
- R CMD INSTALL
--configure-args='--with-gdal-config=/Library/Frameworks/GDAL.framework/unix/bin/gdal-config
--with-proj-include=/Library/Frameworks/PROJ.framework/unix/include
--with-proj-lib=/Library/Frameworks/PROJ.framework/unix/lib'
rgdal_0.9-1.tar.gz
- Download and install the GDAL 1.11 Complete frameworks 2015-3-4 (which includes gdal and geos) for MacOS X from <http://www.kyngchaos.com/software/frameworks>
- `install.packages("rgeos", repos="http://R-Forge.R-project.org", type="source")`