INSTRUCTIONS FOR USING RSTUDIO AND R ON ARC'S *ONDEMAND* PLATFORM

1. ACCESSING AND LAUNCHING RSTUDIO

(1) Start by entering *ondemand.arc.vt.edu* in your web browser's address window. Log on to the system via 2-factor authorization (have your cell phone at hand!).

(2) From the *Interactice Apps* menu choose *Rstudio* under *Cascades* or *Dragonstooth* (either cluster should be fine - Cascades has more nodes, but usually longer queuing times). This will open a pre-launch window with a few fields to fill in.

(3) Under *R version* select 3.6.2 - this is KEY, version 3.6.1 won't compile your sweave file. Under *R package set* choose "basic tidyverse," which should be the default. Under *Account* enter *empeconspring2020*. Fields "Reservation" and "Partition" can be left blank. Under *Number of hours* enter your estimated session length, probably something in the 1-2 hours range. Under Number of cores enter 1, unless your script has parallel computing components (not required for this class). Leave everything else unchanged. Click on *Launch*.

(4) In the launch window, WAIT until you see the blue alert *Connect to Rstudio* - this may take a few seconds to a few minutes. Click on launch button when it appears - this will open Rstudio in a new browser tab.

(5) Note that by default Rstudio will be linked to your *home/yourname* directory as your working directory. I would leave it that way. See below how to access folders and files nested underneath your *home/yourname* directory.

(6) When you're done with your Rstudio session PLEASE close the Rstudio browser tab and "Delete" your active session to make computing room for others.

2. FOLDER AND FILE MANAGEMENT

(1) Go to the OnDemand home screen (browser tab "my interactive session" if you are already running a session). Under *Files* go to your home directory - a **new browser tab** will open with a header saying */home/yourname/*, and, perhaps, a list of folders that are already established in your home directory (especially if you are also listed under other research allocations).

(2) Use the command buttons in the upper right hand corner to create new folders and upload files. See the suggested "Folder environment" on our course web site.

3. WORKING WITH RSTUDIO

Running R and compiling sweave files using Rstudio is pretty much the same as running it on your PC or laptop. However, you will need to adjust your file paths. By default, Rstudio

points at your home directory, for me that's **_home/moeltner_**. So if I want to call a file from my **_home/moeltner/AAEC5126/module1_** folder, I would simply refer to that designation as **_AAEC5126/module1_**. NO c:\\(or such) needed. Same holds for loading or saving output and data.