STAT 4200 Third Project Due: Friday, December 4th 25 Points

* You are to use the map you used in project 2 to create equal area plots (as close to 200 as possible). I have now stratified the campus into three different strata. The different strata are outlined in red on the new campus map. Using the results from project 2 and the new campus map, find *estimates of the variance within each stratum*. You will again sample 20 total plots, but these should be allocated to each stratum using *Neyman allocation*. (We are assuming equal cost in the different stratum).
* Once you have selected the 20 plots allocated among the three strata across campus, you are to go to those plots and count the number of trees in each plot.
* You will have 20 pieces of information as a result of that sampling. You are to then find the best estimate for the total number of trees, τ, on UVU’s campus using the best estimate defined in Chapter 5.
* You will also need to find a 95% confidence interval for τ by using your sample data stratified among the three strata. Assume the data is approximately normal.
* You are to write a short report, no more than 2 pages, presenting your results and discussing any concerns you have about the sampling procedure, the data collection and/or the calculations themselves. In your write-up, please compare and contrast your results with those you obtained in the second project.