Geospatial Information Science (GIS)
Additional Rationale

Why a GPS course, GISC 1301? All data collection in GIS is either accomplished with remote sensing (satellites, etc.) or with GIS analyst collecting the data on site using GPS, called *in situ* data collection. We have two courses in remote sensing, GISC 1421 and GISC 2402. The students currently get no exposure to *in situ* data collection. GIS new hires are expected to know how to gather *in situ* data with GPS.

Why a GIS Programming course, GISC 2335? The industry standard GIS software is called ArcGIS. Although the software has many tools to accomplish a lot of GIS tasks, these tools often need to be customized for a particular application. That involves the Python programming language. There are also many GIS tasks that involve multiple steps that can easily be automated. That involves the Python programming language. GIS new hires are expected to know how to program in ArcGIS using Python.

The other change we are making is the replacement of one of the electives with DFTG 1309. All GIS work was done in CAD once upon a time. Today, all those old CAD drawings are being input into a Geodatabase. That is what new hires are often put to work doing. Having some knowledge of CAD would be very useful for our students. Therefore, I am proposing that DFTG 1309 replace one of the two electives.