**Lesson 1 – Course Introduction**

**CS495 – Command Line Problem Solving**

**Spring 2017**

* Have cadets begin to copy the software files onto their computers from USB drives while we discuss.
* Explain the name of the course
  + This course is not about using the command line to execute commands.
  + It is about solving problems quickly and efficiently.
* Discuss Unix-like systems. <https://en.wikipedia.org/wiki/Unix-like>
* The big ideas behind Unix-like systems:
  + Everything is text!
  + Create simple tools that do one thing well.
  + The designers did not like to type either, so most commands are 2-letter acronyms.
  + All tools read from stdin and write to stdout and stderr.
  + A *pipe* connects the stdout of one process to the stdin of another process.  
    🡪 Tools can be chained together.
  + Walk through the example below.
* Show the course web site; review the general topics
* Have cadets purchase a license to VMworkstation.
* Install and build the environment.

Notes:

To count the number of times each world in a file appears:

sed 's/^[0-9]\*:[0-9]\*\ //' $1 | \

tr '[A-Z]' '[a-z]' | \

tr -d '[.,;:]' | \

tr ' ' '\n' | \

sort | \

uniq -c | \

sort -nr | \

less