Outline for Python Training

1. Overview Proposals
   1. Use Doxygen comments
2. Object-oriented Scripts
3. Rocoto for HWRF
   1. Basic overview of how Rocoto works, including basic jobs that run and their dependencies
   2. XML components; ent file overview
   3. Activity: Describe the dependencies of several tasks
   4. Activity: Change tasks to have corresponding dependencies
   5. Effectively using Rocoto utilities
   6. Purpose of and how to run run\_hwrf.py
4. Configuring
5. Logs Overview
   1. Rocoto logs location, contents, example
   2. jlog location, contents, how to write to file from Python scripts, example
   3. Standard error and standard out files location, purpose, examples
   4. Components that have their own logs
   5. Python exception stacks
   6. Steps for debugging
   7. Exercise: Determine why GSI failed
6. Scripts: Part 1
   1. Motivation of Python scripts for HWRF and layered structure
   2. Intercycle and workflow layer descriptions
   3. Scripting layer description
      1. Exercise: Discuss exhwrf\_init.py from terminal
   4. Categories of scripts – repeat of Doxygen
   5. Go to Doxygen page and go through each of the script categories
7. Scripts: Part 2
8. Database
9. Debugging