**Deliverables CTEC 298-101 Fall 2020**

Deliverables should be in 3 repositories, Google Share drive, Jupyter Notebook, Github

1. **Items from CTEC 128**

Powerpoint

Research Paper/Data Report

Data Files

1. **LearnPython Tutorials**

Part 1 Proof of Completion and code

Part 2 Proof of completion and code

Part 3 Proof of completion and code

1. **Tutorials: Jupyter, Matplotlib and Pandas**

Anaconda/Jupyter Notebook for Beginners proof of completion

Matplotlib Python Tutorial proof of completion

Matplotlib Tutorial: Python Plotting code

Pandas Tutorials proofs of completion and code

Tableau Tutorial proof of completion and code

Provide evidence of completion

1. **Plot/Visualization Deliverables**

Students will create one of each of the plots assigned in class in Python. The deliverables will consist of the following steps for each of the 6 plots:

1. The original data set used,

2. The final dataset used,

3. The Python code used to move from the original data to the final data (in the cleaning and wrangling phase), and finally

4. The plot.

If the data sets are too large to print, use the head and tail functions (3-5 records each) to display the data for each data set.

The student should document each of the steps.

1. **Paper Creation**

After steps 1-4, the student will create their portion of the final paper which contains all the deliverables and tells how they were created. See in brief and detail formats below.

1. **The Paper Format (in brief)**

Title

Authors

Class Session

1. Introduction
2. Summaries of CTEC 128 papers
3. Description of CTEC material submitted
4. Description of the plot deliverables
5. Summary/conclusion
6. References

**The six plots (Python)**

Bar Plot

Pie Chart/Plot

Histogram

Scatter Plot

Stack Plot

Multiplot

**Two Plots (Tableau)**

TBD

1. **The Paper Format (Group)**

Title (which reflects the contents)

Authors

Class Session

1. Introduction
2. Summaries of CTEC 128 papers w/Tables
   1. Summary 1 Group Leader
   2. Summary 2 Member 1
3. Description of CTEC 298 material submitted/w/tables
   1. Description 1 Group Leader
   2. Description 2 Member 1
4. Description of the plot deliverables w/tables
   1. Description 1 Group Leader
   2. Description 2 Member 1
5. Summary/conclusion w/Tables
6. References