

Assignment Rubric: Data Science Lab 10 Machine Learning with SKLearn

| Question Number | Total Points | Deductions: |
|-----------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | 10 | <p>-1: They don't attempt to answer how K-Means works (If they attempt give them full credit)</p> <p>-1: They don't attempt to answer how DBScan works (If they attempt give them full credit)</p> <p>-1: If they don't have a combination of ML algorithm & dataset, mark them off 1 point (total of 9 points off)</p> <p>Max deductions: 10 points</p> |
| 2 | 5 | <p>-1.667: They don't predict clusters of iris dataset using the KMeans algorithm</p> <p>-1.667: They don't create a plot using the X_reduced.</p> <p>-1.667: They don't comment on their observations.</p> <p>Max deductions: 5 points</p> |
| 3 | 5 | <p>-1.667: They don't split the dataset using the train_test_split function.</p> <p>-1.667: They don't report the number of samples in the train set.</p> <p>-1.667: They don't report the number of samples in the test set.</p> <p>Max deductions: 5 points</p> |
| 4 | 5 | <p>-1: They don't train the K-Nearest Neighbors on the dataset</p> <p>-1: They don't perform a grid search over the parameter n_neighbors</p> <p>-1: They don't fit a KNN for each value of n_neighbors</p> <p>-1: They don't create a plot showing the test/train accuracy over the n_neighbors</p> <p>-1: They don't report the train and test accuracy when the n_neighbors parameter is 5</p> <p>-1: They don't discuss what they learn.</p> <p>Max deductions: 5 points</p> |

Total Points: 25