

## 5.10

The suggestions for following people based on the graph are as follows:

1. Eric – The degree at which the plot would best fit the data without over fitting it would be at  $D=5$ , which has lowest testing error.
2. Stanley - The degree at which the plot would best fit the data without over fitting it would be at  $D=3$ , which has lowest testing error.
3. Kyle - The degree at which the plot would best fit the data without over fitting it would be at  $D=10$ , which has lowest testing error.
4. Kenneth – Here , the training error does not reduce it increases after  $D=8$ , thus it is recommended that Kenneth should improve the model transformation and optimize the feature input of the data.