Winter 2024-2025 CSSE 315

## CSSE 315 – Natural Language Processing Rose-Hulman Institute of Technology

## Worksheet 13

| Nam | e (Print):   |                              | Date:                                   |                |
|-----|--|------------------------------|---|----------------|
| 1.  | What does each a   | obreviation mean:            |   |                |
|     | 1) LDA:<br>2) PCA:   |                              |   |                |
| 2.  |  |                              | algorithm used when the decariables are | ependent vari- |
| 3.  | Complete with PCA/LDA/both   |                              |   |                |
| 4.  | reduce data dimensions focuses on maximizing the separability between known categories focuses on capturing the most variance in the data without considering any group labels  True/False LDA is a supervised Dimensionality Reduction technique: |                              |   |                |
| 5.  | What is the prefer   | red method for normalization | (circle one):                           |                |
|     | <ol> <li>Z-Score</li> <li>Min-Max</li> </ol>   |                              |   |                |
| 6.  | Complete the table: Multivariate Techniques  |                              |   |                |
|     | Name   | Description                  |   |                |
|     |  | Explain the large nu         |   |                |
|     |  | using their underlying       | 0                                       |                |
|     |  |                              | in the dependent variable               |                |
|     |  |                              | es in independent variables             |                |
|     |  | Classify data into m         | utually exclusive groups                |                |

- 7. name 2 use cases for LDA:
  - 1)
  - 2)

28 January 2025

ticular class

Predict the likelihood of an object being a par-