I223 Final Exam Study Guide

The exam convers the following lectures:

- Lecture 7, 8, 9, 10: Python Fundamental Knowledge
- Lecture 14: Naïve Bayes Classification

You are responsible for all of the following materials:

- All lecture slides in above Lectures
- In-Class Assignment questions
- Homework questions

Here are some important items you might need to review:

- Values and types in Python
- Variables in Python
- Reserved keywords and variable names
- Basic math operators and operations
- Convert data type
- Boolean expression and logical operators
- Conditional execution
- If statements (different types of if statements)
- Exceptions: try and except
- Short circuit in logical expression
- Functions
- Generate random numbers
- Math functions
- Define new functions
- Loops in python (different loop styles)
- Usage of break and continue in loops
- String and corresponding operations and methods
- Format operator in strings
- List and corresponding operations and methods
- Dictionary and corresponding operations and methods
- Tuples and corresponding operations and methods
- Files and corresponding operations and methods
- What' discriminative classification and what's generative classification. And the difference between them
- Naïve Bayes Classifier and key components in it.
- What's MAP?
- Understand the training and testing in Naïve Bayes Classifier.
- How to use Naïve Bayes classifier for categorical data
- How to use Naïve Bayes classifier for numeric data

You may prepare a cheating sheet with the letter size of a print paper, double sides.