CMPS 4553/5993 Topics: Computational Methods
Study Guide Test 1

Read/Study
   Data Science Essentials Chapters 1- 5,
   CSE paper
   Slides, especially on natural computing
   Homework assignments
   Project 1
   Last Thursday's in-class work

Format:
   Multiple choice
   Fill-in blank
   Tracing code
   Computing mean of a list of numbers
   Writing code snippets

Concepts:

computational science	regular expression	ufuncs
data science	module re	statistics module
scientific computing	globbing	numpy mean, std
simulation	pickling/unpickling	aggregate analysis
modeling	NLTK	mean
data acquisition	NUMPY	standard deviation
data analysis sequence	list comprehension	stemming
6 types of analysis	lists vs arrays vs sets	normalization – 5 steps
raw data	dictionaries	lemmatization
bad/good data	Beautiful Soup	opening text files, web
data representations	tuple	pages and csv files
report structure	strings/string processing	reading/writing files
HTML vs XML	split	closing files
built-in string functions	lower/upper	serializable objects
for each loop	indexing and slicing	stopwords
counters	finding index of column by	wordnet
CSV, HTML, XML, JSON	name	corpus
Delimiter	zip	