I. Purpose of Midterm

- This midterm is designed to evaluate progress through the class. In particular, we want to understand how you perform with big picture ideas as well as important topics.

II. Disclaimers and Caveats

- This is not necessarily an exhaustive list.
- Some questions will be repeated from quizzes 1 through 4.
- There will be roughly a quiz's worth of content from week 5 included in the midterm.

III. Week 1

- Data Types
- `if`/`elif`/`else`, `for`, `while`
- Functions
- Lambda Functions & List Comprehensions
- Descriptive Statistics

IV. Week 2

- Probability & Independence
- Sampling and Populations
- Inferential Statistics
- Pandas
- EDA

V. Week 3

- Stakeholder Analysis
- Linear Regression
- Train/Test/Validation Sets & Cross-Validation
- Regularization
- Bias-Variance Tradeoff

VI. Week 4

- Classification
- k-Nearest Neighbors
- Logistic Regression
- Evaluating Classifiers
- Gridsearch
- Feature Selection & Feature Scaling

VII. Week 5

- SQL
- NLP
- SVMs
- Pipelines