### Course Syllabus

#### Defining Data Science and What Data Scientists Do

- Defining Data Science
- What is Data Science?
- Fundamentals of Data Science
- The Many Paths to Data Science
- Advice for New Data Scientists
- Data Science: The Sexiest Job in the 21st Century

#### What Do Data Scientists Do?

- A day in the Life of a Data Scientist
- Old problems, new problems, Data Science solutions
- Data Science Topics and Algorithms
- What is the cloud?
- What Makes Someone a Data Scientist?

### **Data Science Topics**

- · Foundations of Big Data
- How Big Data is Driving Digital Transformation
- What is Hadoop?
- Data Science Skills & Big Data
- Data Scientists at New York University
- Data Mining
- Quiz: Data Mining

## Deep Learning and Machine Learning

- What's the difference?
- Neural Networks and Deep Learning
- · Applications of Machine Learning
- Regression

Quiz: Regression

#### **Data Science in Business**

- Applications of Data Science
- How Data Science is Saving Lives
- How Should Companies Get Started in Data Science?
- · Applications of Data Science
- The Final Deliverable
- Quiz: The Final Deliverable

# Careers and Recruiting in Data Science

- How Can Someone Become a Data Scientist?
- Recruiting for Data Science
- · Careers in Data Science
- High School Students and Data Science Careers

## The Report Structure

- The Report Structure
- Quiz: The Report Structure
- Final Assignment