Module 1 Contents		
Module 1: Data, Individuals, and Society		
Module 1 Introduction		
Module 1 Complete Slides PDF		
Lesson 1: Introduction		
China's Social Credit System		
What is Big Data?		
Course Structure		
Lesson 2: Overview		
Targeted Messaging		
What's the Problem?		
Al & Unintended Consequences		
Lesson 3: Ethics vs. Law		
Relationship between Ethics and Law		
Overview of US Laws		
Ethical Decision Making		
Code of Ethics		
Ethical Issues for Big Data		
Example Ethical Issue		
Lesson 4: Data Collection		
Facebook Cambridge Analytica Scandal		
Information Privacy		
Data Management Practices		
Intellectual Property Rights and Protections		
Lesson 5: Fairness and Bias		
What is Bias?		

Video	An Incorrect Assumption about AI
Video	Algorithmic Bias
Video	Biases in Data
Video	Fairness
Video	Principles for Quantifying Fairness
Assignment	Case Study: Loan Denied
Assignment	Case Study: Emails Exposed
Assignment	Homework Project: FB Assignment
Assignment	Case Study: Facebook Manipulation
Assignment	Written Critique: Ethical Autonomous Vehicles

Module 2 Co	Module 2 Contents		
	W 11 0 D0 (D) D 1 0 0 1 101		
Heading	Module 2: BS of Big Data & Stats 101		
Video	Module 2 Introduction		
PDF	Module 2 Complete Slides PDF		
Heading	Lesson 6: Overview		
Video	Why Statistics?		
Video	How to Mislead through Poor Sampling		
Video	How to Mislead through Poor Analysis		
Video	How to Mislead through Interpretation		
Heading	Lesson 7: Python and Stats 101		
Video	Defining Data Analytics		
Video	All About the Data		
Video	Introduction to Python and Jupyter		
Video	Basic Statistical Measures & Data Analytics using Python		
Video	Hands on Tutorial: Pandas Basics 1		
Heading	Lesson 8: Descriptive Statistics		
Video	Types of Studies & Sampling Errors		
Video	Median, Mean, and Mode		
Video	How to Mislead with Averages		
Video	Frequency Distribution		
Video	Variability		
Assignment	Exercise: Anscombe's Quartet		
Video	Descriptive Statistics in Pandas		
Video	Hands on Tutorial: Pandas Basics 2		
Heading	Lesson 9: Inferential Statistics: Sampling Bias		
Video	Inferential Statistics Introduction		
Video	Warm Up Exercise		

Video	Simpson's Paradox
Video	Biased Sampling
Video	Biased Sampling Example
Video	Types of Randomized Sampling
Video	Sampling Bias Example Experiments
Assignment	Exercise: Smoking Sampling Bias Design
Heading	Lesson 10: Inferential Statistics: Causation vs Correlation
Video	Correlation vs. Causation
Video	Correlation vs. Causation Examples
Video	Relationships
Other	Additional Material: Measuing Linear Correlation in Python
Heading	Lesson 11: Inferential Statistics: Confidence
Video	Empirical Rule
Video	Population Portions and Margin of Error
Video	Sample Size vs. Margin of Error
Assignment	Homework Project: Stats 101 Assignment
Assignment	Dummy Assignment for Submissing/Viewing Notes (idterm)
Assignment	Mid-Term Exam