Each week we will review the assigned articles in the live session. Questions are listed on the following pages.

Week 1

Article #1: Business Analytics Insight

How are companies using analytics?
Which analytics techniques does your company use?

Article #2: GE and the Culture of Analytics

How is GE using analytics for process improvement?
What did they do to accelerate analysis and results?
Why is culture important?

Article #3: Location Analytics

What are some applications of geographic data in businesses?
What are the advantages of consolidating individual accounts by location? What are the risks of consolidation?
How is your company using geographic data?

Week 2

Article #1: Sustaining an Analytics Advantage

What are some examples of creating competitive advantage with analytics (companies and their techniques)?

Article #2: Creating Business Values with Analytics

What are the differences between competencies in information management and analytics expertise?

What are the advantages of focusing first on information management versus analytics expertise?

Article #3: Raising the Bar with Analytics

What new opportunities did StyleSeek and Entravision encounter when they used analytics?

What opportunity allowed MillerCoors to create efficiencies with analytics?

Week 3

Article #1: Web Analytics: Enhancing Customer Relationship Management

1. Describe the four main categories of metrics and relate to the Google analytics lessons
   Website usability
   Traffic sources
   Visitor profiles
   Conversion statistics

2. Describe the common techniques for Web analytics
   Clustering/classification; Association rules; Path analysis; Sequential patterns

3. What are some business applications of web analytics?

Article #2: How eBay Uses Data and Analytics to Get Closer to Its (Massive) Customer Base

1. What is an A/B test and what is its purpose?

2. Describe the three biggest challenges of web data

   Data at a large scale
   Collecting the right data
   New kinds of data

3. How can Power Sellers use data better?

4. Why are web analytics better than surveys?

Week 4

Article #1: Minding the Analytics Gap

1. What is a barrier to using analytics?
2. What can be done on the production and consumption side of analytics to overcome this barrier?
3. Describe the three levels of analytics maturity

Article #2: Innovating with Analytics

1. Describe the three characteristics of analytics innovators

Week 5

Article #1: Innovating with Airborne Analytics

What are the three areas of focus for their strategy for the next 3-4 years? Give examples of what they are doing
What are the challenges with hiring data scientists?
What are the risks trying to use technology in the organization? Give an example of each

Article #2: A New, Analytics-Based Era of Banking Dawns at State Street

What were the key questions that they asked which analytics could help?
What was the challenge of launching analytics at State Street?
How do they continue to push analytics forward?

Week 6

Article #1: Modern Analytics and the Future of Quality Performance Excellence

Define analytics (page 6)
How are companies using analytics in (page 7)?
- Banks
- Manufacturing
- Retail
- Pharmaceuticals
- Sports

Modern analytics integrates which three fields (page 8)?
What are some examples of data sources (page 9)?
What are examples of data visualization (page 11)?

Article #2: A Process of Continuous Innovation: Centralizing Analytics at Caesars

Why does Caesars use analytics (pages 1 & 2)?
What are four lessons learned from their experience (page 3)?

Week 7

Article #1: Big Data in Health Care: Using Analytics to Identify and Manage High-Risk and High-Cost Patients

What are the six opportunities to reduce costs through analytics?
How can cost be reduced in each?

Article #2: A Review of Analytics and Clinical Informatics in Health Care

What are some methods for improvement in health care using analytics? (page 2)
What are some challenges for analytics in health care? (page 4)

Week 8

Article #1: What Businesses Can Learn from Sports Analytics?

Describe the five key lessons of analytics in sports (give an example of each)

Article #2: Team GB: Using Analytics (and Intuition) to Improve Performance

What is the value of predicting team performance? (page 2)
What is the biggest challenge? (page 2)
What are some of the barriers? (page 3)
Where is the power of the data? (page 5)

Week 9

Article #1: An introduction to data mining and other techniques for advanced analytics

What are the key differences between statistical analysis and data mining? (page 140)
Describe tools for advanced analytics (page 149-151)
- Data visualization
- Text mining
- Social network analysis
- Contact optimization

How do you mitigate the risks of data mining? (page 152)

Other articles of interest

Deep Neural Networks:

DeepMind AlphaGo defeats world champion in game of Go (March 2016; Jan 2017 update):
https://www.scientificamerican.com/article/how-the-computer-beat-the-go-master/
http://fortune.com/2017/01/07/google-alphago-ai/

Google Brain's neural network develop AI encryption (November 2016):
https://www.scmagazine.com/google-brains-neural-networks-develops-ai-encryption/article/570049/
http://www.wired.co.uk/article/google-artificial-intelligence-encryption

DeepStack Defeats 10 out of 11 poker champions (March 2017), develops intuition:
http://www.cnn.com/2017/03/02/health/artificial-intelligence-poker-intuition-study/index.html
https://www.scientificamerican.com/article/time-to-fold-humans-poker-playing-ai-beats-pros-at-texas-hold-rsquo-em/

Not Neural Networks:

DeepBlue defeats Gary Kasporov in chess (1996):
https://en.wikipedia.org/wiki/Deep_Blue_(chess_computer)

DeepThought defeats chess grand master Brent Larsen (1988), but loses to Gary Kasparov in chess (1989):
https://en.wikipedia.org/wiki/Deep_Thought_(chess_computer)

Week 10

Article #1: Business Analytics: Transforming the Role of Management Accountants

What are some external and internal data sources for accountants? (page 3)
What are four challenges for accountants using analytics? (page 4)
What are five areas for leveraging analytics in accounting? (page 4)

Article #2: Elevating Data, Analytics to the C-Suite

What are the steps to elevate a department using analytics? (page 5)
How should you address non-perfect data? (page 5)
Should analytics teams be centralized or decentralized? (page 6)