Course Outline:

Bluemix/IBM Cloud and Fundamentals of Cognitive Computing

- Define the main characteristics of an AIsystem
- Explain neural nets
- Explain machine learning technologies (supervised, unsupervised, reinforcement learning approaches)
- Define a common set of use cases for cognitive systems
- Define Precision, Recall, and Accuracy
- Explain the importance of separating training, validation and test data
- Measure accuracy of service
- Perform Domain Adaption using Watson Knowledge Studio (WKS)
- Define Intents and Classes
- Explain the difference between ground truth and corpus
- Define the difference between the user question and the user intent

Use Cases of AI Services

- Select an appropriate combination of AI technologies based on use-case and data format
- Explain the uses of the Watson services in the Application Starter Kits
- Describe the Watson Assistant Agent
- Explain use cases for integrating external systems (such as Twitter, Weather API)

Fundamentals of IBM Watson Developer Cloud

- Distinguish Watson AI services on WDC for which training is required or not required
- Provide examples of text classification using the NLC
- Explain the Watson SDKs available as part of the services on Watson Developer Cloud

- Explain the Watson REST APIs available as part of the services on Watson Developer Cloud
- Explain and configure Text to Speech
- Explain and configure Speech to Text
- Explain and configure Tone Analyzer
- Explain and configure Assistant
- Explain and configure Discovery
- Explain and configure Visual recognition
- Explain and configure Language Translator
- Explain and configure Natural Language Classifier
- Explain and configure Natural Language Understanding
- Explain and configure Personality Insights

Developing Cognitive Applications using Watson Developer Cloud Services

- Call a Watson API to analyze content
- Describe the tasks required to implement the Assistant Agent/Digital Bot
- Transform service outputs for consumption by other services
- Define common design patterns for composing multiple Watson services together (across APIs)
- Design and execute use case driven service choreography (within an API)
- Deploy a web application to IBM Cloud

Administration and DevOps for applications using IBM Watson services

- Describe the process of obtaining credentials for Watson services
- Monitor resource utilization of applications using IBM Watson services
- Monitoring application performance on the IBM Cloud