Module 1: Introducing the Course

- Define Outcome-Based Delivery (OBD)
- Describe how this course is aligned to parts of OBD
- Use essential course terminology correctly
- Recognize the ArchiMate 3 notation subset used in this course

Module 2: Introducing MuleSoft, the Application Network Vision, and Anypoint Platform

- Articulate MuleSoft's mission
- Explain MuleSoft's proposal for closing the increasing IT delivery gap
- Describe the capabilities and high-level components of Anypoint Platform

Module 3: Establishing Organizational and Platform Foundations

- Advise on establishing a C4E and identify KPIs to measure its success
- Choose between options for hosting Anypoint Platform and provisioning Mule runtimes
- Describe the set-up of organizational structure on Anypoint Platform
- Compare and contrast Identity Management and Client Management on Anypoint Platform

Module 4: Identifying, Reusing, and Publishing APIs

- · Map planned strategic initiatives to products and projects
- Identify APIs needed to implement these products
- Assign each API to one of the three tiers of API-led connectivity
- Reason in detail about composition and collaboration of APIs
- Reuse APIs wherever possible
- Publish APIs and related assets for reuse

Module 5: Enforcing NFRs on the Level of API Invocations Using Anypoint API Manager

- Describe how Anypoint API Manager controls API invocations
- Use API policies to enforce non-functional constraints on API invocations
- Choose between enforcement of API policies in an API implementation and an API proxy
- Register an API client for access to an API version
- Describe when and how to pass client ID/secret to an API
- Establish guidelines for API policies suitable for System APIs, Process APIs, and Experience APIs

Module 6: Designing Effective APIs

- Appreciate the importance of contract-first API design and RAML fragments
- Opt for semantic API versioning and where to expose what elements of an API's version

- Choose between Enterprise Data Model and Bounded Context Data Models
- Consciously design System APIs to abstract from backend systems
- Apply HTTP-based asynchronous execution of API invocations and caching to meet NFRs
- Identify idempotent HTTP methods and HTTP-native support for optimistic concurrency

Module 7: Architecting and Deploying Effective API Implementations

- Describe auto-discovery of API implementations implemented as Mule applications
- Appreciate how Anypoint Connectors serve System APIs
- Describe CloudHub's features and technology architecture
- Apply strategies that help API clients guard against failures in API invocations
- Describe the role of CQRS and the separation of commands and queries in API-led connectivity
- Explain the role of Event Sourcing

Module 8: Augmenting API-Led Connectivity with Elements from Event-Driven Architecture

- Selectively choose elements of Event-Driven Architecture in addition to API-led connectivity
- Make effective use of events and message destinations
- Impose event exchange patterns in accordance with API-led connectivity
- Describe Anypoint MQ and its features
- Apply Event-Driven Architecture with Anypoint MQ to address specific NFRs

Module 9: Transitioning into Production

- Locate API-related activities on a development lifecycle
- Interpret DevOps using Anypoint Platform tools and features
- Design automated tests from the viewpoint of API-led connectivity and the application network
- Identify the factors involved in scaling API performance
- Use deprecation and deletion of API versions in Anypoint Platform
- Identify single points of failure
 <u>Module 10: Monitoring and Analyzing the Behavior of the Application Network</u>
- Describe the origins of data used in monitoring, analysis, and alerting on Anypoint Platform
- Describe the metrics collected by Anypoint Platform on the level of API invocations
- Describe the grouping of API metrics available in Anypoint Analytics
- Make use of options for performing API analytics within and outside of Anypoint Platform
- Define alerts for key metrics of API invocations for all tiers of API-led connectivity
- Use metrics and alerts for API implementations to augment those for API invocations
- Recognize operations teams as an important stakeholder in API-related assets and organize documentation accordingly