Course Outline:

1: Introduction

- DevOps Defined
- High-Performance IT Organizations
- Core Chronic Conflict
- Exercise: Pain Points
- Business Value of DevOps
- Where DevOps Came From
    - W Edwards Deming and Total Quality Management
    - The Lean Movement and Toyota Production System
    - The Agile Development and Infrastructure Movements
    - Exercise: Agile Infrastructure
    - The Continuous Delivery Movement
- IT Service management and DevOps
- End Goals of DevOps and CALMS

2: Maturing a DevOps Practice in the Enterprise

- DevOps and Organizational Culture
- 2 Patterns You Can Follow
- The Involvement Principle
    - Information Security Principles
- Exercise: The Involvement Principle
- Scaling DevOps in the Enterprise

3: The DevOps Journey - The Three Ways

The First Way: Optimize Flow

- Principles of Flow
- Infrastructure As Code
- Infrastructure Configuration Mgmt and Tools
- Deployment Pipeline and Tools
- Shared Version Control and Tools

- Build Quality In
- Containerization
- SOA and Microservices
- Exercise: Optimizing Flow

The Second Way: Amplify Feedback

- Principles of Feedback
- Telemetry Principles
- System Monitoring Tools
- Log Aggregation and Tools
- Use Telemetry to Anticipate Problems
- Feedback For Safe Deployment of Code
- Hypothesis-Driven Development
- Exercise: Amplifying Feedback

The Third Way: Continual Learning and Experimentation

- Learning Culture
- Innovation Culture
- Exercise: Learning and Innovation Culture

4: Course Conclusion

- Q and A