DevSecOps Engineering (DSOE)

Course Overview

In this course, students will gain a solid understanding of the leadership requirements for successful DevOps adoption at both the tactical and strategic levels for those who help design, influence, implement and motivate the cultural transformation.

Who Should Attend

This course is intended for:
Anyone starting or leading a DevOps cultural transformation program
Anyone interested in modern IT leadership and organizational change approaches
Business Analysts
Business Stakeholders
Consultants
DevOps tool providers
IT Operations Managers
IT Leadership
Practitioners and change agents
Project Managers
Systems Integrators
Team Leaders, Managers, Directors
Tool Suppliers

Course Objectives

- The Golden Circle
- Understanding organizational culture and organizational change
- Conway’s Law and its influence on DevOps and systems thinking
- Strategies for leading cultural transformations
- Evolving silos into flat, team based organizations
- Managing conflict
- Creating feedback loops
- Creating learning environments
- Avoiding change fatigue
- Managing conflict
- Communication and collaboration strategies
- Meaningful metrics
- Resourcing for DevOps
- Demonstrating DevOps ROI
- Critical success factors
- Getting started

Course Outline

1 COURSE INTRODUCTION

Course Goals
Course Agenda
DevSecOps Engineering (DSOE)

2 WHY DEVSECOPS

Key Terms and Concepts
Why DevSecOps is important
3 Ways to Think About DevOps+Security
Key Principles of DevSecOps

3 CULTURE AND MANAGEMENT

Key Terms and Concepts
Incentive Model
Resilience
Organizational Culture
Generativity
Erickson, Westrum, and LaLoux
Exercise: Influencing Culture

4 STRATEGIC CONSIDERATIONS

Key Terms and Concepts
How Much Security is Enough?
Threat Modeling
Context is Everything
Risk Management in a High-velocity World
Exercise: Measuring For Success

5 GENERAL SECURITY CONSIDERATIONS

Avoiding the Checkbox Trap
Basic Security Hygiene
Architectural Considerations
Federated Identity
Log Management

6 IAM: IDENTITY & ACCESS MANAGEMENT

Key Terms and Concepts
IAM Basic Concepts
Why IAM is Important
Implementation Guidance
Automation Opportunities
How to Hurt Yourself with IAM
Exercise: Overcoming IAM Challenges

7 APPLICATION SECURITY

Application Security Testing (AST)
Testing Techniques
Prioritizing Testing Techniques
Issue Management Integration
Threat Modeling
Leveraging Automation
8  OPERATIONAL SECURITY
Key Terms and Concepts
Basic Security Hygiene Practices
Role of Operations Management
The Ops Environment
Exercise: Adding Security to Your CI/CD Pipeline

9  GOVERNANCE, RISK, COMPLIANCE (GRC) AND AUDIT
Key Terms and Concepts
What is GRC?
Why Care About GRC?
Rethinking Policies
Policy as Code
Shifting Audit Left
3 Myths of Segregation of Duties vs. DevOps
Exercise: Making Policies, Audit and Compliance

10 LOGGING, MONITORING AND RESPONSE
Key Terms and Concepts
Setting Up Log Management
Incident Response and Forensics
Threat Intelligence and Information Sharing

11 COURSE REVIEW
Where We Started
What We Covered
Key Reminders of What’s Important
Exercise: Creating a Personal Action Plan

12 EXAM PREPARATIONS
Exam Requirements, Question Weighting and

13 TERMINOLOGY LIST
Sample Exam Review